MAGNETICAL, METEOROLOGICAL AND SEISMOLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORIES, BOMBAY AND ALIBAG,

1903 TO 1905.

WITH AN APPENDIX.

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MAGNETICAL, METEOROLOGICAL, AND SEISMOLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORIES,

BOMBAY AND ALIBAG,

IN THE YEARS

1902 TO 1905,

UNDER THE DIRECTION OF

133502

N. A. F. MOOS, Esq., B.Sc., F.R.S.E.

WITH AN APPENDIX.

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INTRODUCTION

TO THE

METEOROLOGICAL, SEISMOLOGICAL AND MAGNETICAL OBSERVATIONS, 1902 TO 1905.

The present volume—the thirty-ninth of its kind—extends the record of the Magnetical and Meteorological Observations at the Government Observatory, Bombay, to a period of sixty years and of the Seismological Observations to a period of seven years, and also for the first time includes the Alibág magnetic record* for the years 1904-1905.

2. *Local Situation of the Cola'ba Observatory, &c.*—The Observatory is located at the extreme end of a narrow and somewhat rising strip of land called Colába, running about two miles south-west from the Fort of Bombay, and separating the Harbour from Back Bay. The mean level of the Observatory compound is 32 feet above the mean level of the sea at Colába. Basaltic traps with their intertrappean beds, which constitute more or less the formation of the whole surrounding coast, crop up at various places through the red sandy soil characteristic of the hills in the vicinity. The nearest elevated ground is Malabár Hill lying northwards at a distance of about 4 miles on the opposite side of the Bay, while that which subtends the largest vertical angle —but less than 1° 7′—as seen from this Observatory, is the southern hill of the island of Karanja situated east-south-east at a distance of about 8 miles across the Harbour.

The exact geographical position of the Observatory is

Latitude 18° 53′ 45″ North.

Longitude 72° 48′ 56″ East.

The buildings concerned with the production of the observations recorded herein are, (1) the Astronomical Observatory and the Anemometer Tower, with a western wing, the greater part of which serves as a computing room, whilst the remainder is partitioned off for a photographic operating room; (2) the Magnetical Observatory with the adjoining Electrometer Tower; (3) the underground Magnetograph Room; (4) the Thermograph Shed, enclosing the thermograph room, to which may be added the old thermometer shed; and (5) the Seismograph Buildings.

* Early in 1900 the City of Bombay decided to have its ordinary tram lines converted into electric traction and it became imperative for the Observatory to take early action for the protection of its magnetic work thus threatened. With the certainty of the traction lines approaching the Observatory to within a mile of its site, if not actually passing by it, it appeared extremely problematic if means could be devised to avert the danger which threatened the magnetic work so as to allow of its being continued at Colába without being seriously vitiated by the disturbing effects of the traction. It was hence deemed advisable to transfer the magnetic part of the work of the Observatory to some protected site in the neighbourhood of Bombay, before the electric traction was started, in time to allow of at least a two years concurrent duplicate series of magnetic record being taken simultaneously at the new and old sites for comparison, and thus preserve the continuity of the valuable Bombay record which has run uninterruptedly for sixty years at the present site. From several sites recommended the one at Alibág was selected as the least objectionable as it fairly fulfilled the following requirements :—

(1) It was sufficiently distant from Bombay to be free from the disturbing effects of the traction; (2) there was little probability, at least in the near future, of the extension of the traction in the direction of the neighbourhood of the site; (3) it was sufficiently near and accessible, with almost similar and comparable magnetic conditions which practically assured the preservation of the continuity of the Bombay record so essentially urgent from the stand point of scientific requirements.

3. *Local Situation of the Alibág Magnetic Observatory.*—The branch Observatory is located in the town of Alibág lying on the mainland across the Harbour about 19 miles south of Colába. The site of the Observatory is on the foreshore, the coast line of which faces the south-west with a fair extent of sandy shore before it. The ground, unlike Colába, is flat and low-lying, about 16 feet above the mean sea-level. The situation of the Observatory is otherwise fairly similar to that at Colába. The rocks which abound on the surrounding coast are traps covered with a whitish, instead of the reddish, sandy soil found at Colába. The chain of small hills on the north and north-eastwards, about four miles away from Alibág, practically rises from the mainland on the opposite side of the Bombay Harbour, in small mounds and rocky slopes which gather into a more or less central range of hills running north-west to south-east, of which Kankeshwar, Sakar Ghat and Ramdharan about 1,200 feet high are the highest peaks.

The geographical position of the Observatory is

Latitude 18° 38′· 3 North.

Longitude* 72° 52′· 4 East.

Two new buildings, (1) the Magnetometer Building consisting of a large ground floor room for (eye observation) variation instruments, and a tower with three floors for absolute observations and (2) the Magnetograph Building (overground) for the photographic variation instruments, have been specially designed for the requirements and constructed wholly of non-magnetic materials. They have been brought into use from March 1904, when the duplicate concurrent series for the comparison of the magnetic conditions of the old site at Colába and the new one at Alibág was commenced.

4. *Directorship of the Observatories.*—The observations of the years 1902 to 1905 at Colába and of the years 1904 and 1905 at Alibág were taken under the direction of Mr. N. A. F. Moos, B.Sc., F.R.S.E.

5. *Personal establishment and arrangement, 1902 to 1905.*—During the year 1902 the personal establishment in the different departments was as follows:—

Magnetical and Meteorological Department.

First Assistant	...	Vinayak Narayen Nene.
Second Assistant	...	Ganesh Sadashiv Joshi.
First Observer	...	Shitaram Vithal Bendarkar.
Second Observer	...	Gopal Pandurang Sabnis.
Third Observer	...	Sakharam Balaji Bapat.
Computer	...	Vishnu Balkrishna Achwal.
Candidate	...	Padmakar Waman Sirdeshpandye.
Do.	...	Purushottam Anant Ghanekar.

Astronomical Department.

First Assistant	...	Damodar Vaman Sathaye.
Second Assistant	...	Narayan Sakharam Kelkar.

In consequence of the establishment of the Magnetic Branch of the Observatory at Alibág, as referred to above, the personal establishment in the different departments during the year 1903 was as follows:—

Magnetical and Meteorological Department (Colába).

First Assistant	... Vinayak Narayan Nene.
Second Assistant	... Ganesh Sadashiv Joshi—January. Transferred to Alibág Branch.
	Narayan Sakharam Kelkar—February to December.

* Derived from the Bombay co-ordinates by comparison of the local times by heliographic signals.

First Observer	... Shitaram Vithal Bendarkar—January. Appointed Second Assistant, Astronomical Department.
	Gopal Pandurang Sabnis—February to October. (On leave without pay.)
	Mukundrai Virshankar Unakar—November and December.
Second Observer	... Gopal Pandurang Sabnis—January.
	Sakharam Balaji Bapat—February to December.
Third Observer	... Do. January.
	Vishnu Balkrishna Achwal—February to December.
Computer	... Do. January.
	Padmakar Waman Sirdeshpandye—February to December.
Candidate	... Padmakar Waman Sirdeshpandye—January.
	Purshottam Anant Ghanekar—January to May.
	Keshav Damodar Sathaye—June to December.

Astronomical Department.

First Assistant	... Damodar Waman Sathaye.
Second Assistant	... Narayan Sakharam Kelkar—January. Appointed Second Assistant, Magnetical Department.
	Shitaram Vithal Bendarkar—February to December.

Alibág Magnetic Branch.

Head Assistant	... Ganesh Sadashiv Joshi.
Second Assistant	... Waman Vinayak Nene.

During the year 1904 the personal establishment in the different departments was as follows:—

Magnetical and Meteorological Department, Colába.

First Assistant	... Vinayak Narayan Nene.
Second Assistant	... Narayan Sakharam Kelkar.
First Observer	... Gopal Pandurang Sabnis. (On leave without pay till 31st October. Resigned from 1st November.)
	Mukundrai Virshankar Unakar.
Second Observer	... Sakharam Balaji Bapat.
Third Observer	... Vishnu Balkrishna Achwal.
Computer	... Padmakar Waman Sirdeshpandye.

Astronomical Department.

First Assistant	... Damodar Waman Sathaye.
Second Assistant	... Shitaram Vithal Bendarkar.

Alibág Magnetic Branch.

Head Assistant	... Ganesh Sadashiv Joshi.
Second Assistant	... Waman Vinayak Nene.
Mechanic	... Balkrishna Pandurang Mayekar—February to December.

And the same in the year 1905 was as follows:—

Magnetical and Meteorological Department, Colába.

(Up to 31st March 1905.)

First Assistant	... Vinayak Narayan Nene.
Second Assistant	... Narayan Sakharam Kelkar.
First Observer	... Mukundrai Virshankar Unakar.
Second Observer	... Sakharam Balaji Bapat.
Third Observer	... Vishnu Balkrishna Achwal.
Computer	... Padmakar Waman Sirdeshpandye.

Astronomical Department.

First Assistant	... Damodar Waman Sathaye.
Second Assistant	... Shitaram Vithal Bendarkar.

Alibág Magnetic Branch.

Head Assistant	... Ganesh Sadashiv Joshi.
Second Assistant	... Waman Vinayak Nene.
Mechanic	... Balkrishna Pandurang Mayekar.

Magnetical and Meteorolgical Department, Colába.

(From 1st April to 31st December 1905.)

First Assistant	... Vinayak Narayan Nene.
First Observer	... Mukundrai Virshankar Unakar.
Second Observer	... Sakharam Balaji Bapat.
Third Observer	... Vishnu Balkrishna Achwal.
Computer	... Padmakar Waman Sirdeshpandye.

Astronomical Department.

First Assistant	... Damodar Waman Sathaye.
Second Assistant	... Shitaram Vithal Bendarkar.

Temporary Establishment, Colába.

Second Magnetical Assistant	... Narayan Sakharam Kelkar.
Assistant for Alibág Observations	... Waman Vinayak Nene.

Magnetical Department, Alibág.

First Assistant	... Ganesh Sadashiv Joshi.
Second Assistant	... Balkrishna Pandurang Mayekar.

Two special computers were engaged for a period of 10 months during the year for computing work in connection with the Harmonic Analysis of the Colába magnetic data.

6. The duties of the establishment at Colába are distributed in the following manner :—

The First Assistants are charged with the determination of values of instrumental constants and with the more delicate observations requiring skill and long experience, and they generally control and superintend the whole of the work of their respective departments.

Upon the Second Assistant, Magnetical Department, devolve mostly the photographic operations. He is also responsible for all the photographic instruments which require constant and vigilant attention. The anemograph and meteorological work generally are attended to by the Second Assistant, Astronomical Department. The routine magnetical and meteorological observations are in general made by the observers and the computer, who are made to take up the work in rotation. Amongst the duties of the observers are included the tabulation of all photograms, calculation and reduction of meteorological and magnetical elements, preparation of various meteorological and other returns, the calculation of daily averages and the writing out of the monthly abstracts. These latter consist of tables having the days of the month marked in numerical order in the first column and the hours of the day in order at the head of the columns, and there is one such table for each magnetical or meteorological element observed. In no case are the tabulations and reductions allowed to run into arrears unless very urgent special work is on hand. All observers attend the computing office when not actually engaged on observing duty. The Second Assistant, Astronomical Department, and the First Observer, are entrusted with the absolute magnetic observations. At Alibág the First Assistant in charge of the Observatory is entrusted with the absolute magnetical observations and generally controls the whole work at the Observatory. In taking eye observations and in the photographic work he is assisted by an assistant. Although to every

man are delegated duties which he is most competent to perform, precautions are taken to keep some of the observers fully instructed in the different operations, to provide for the occasional absence of any member of the establishment. All computing operations are systematically performed by one computer and checked by a repetition of the operation by another. Residential quarters are provided for all the members of the establishment on the Observatory premises. On Sundays and general holidays all observers are set free except three, one being kept on observing duty, one in charge of photographic instruments and one in charge of astronomical duties. At Alibág, also, eye observations are taken and the photographic duties performed by one of the assistants on Sundays and general holidays in rotation. The following are the initials of the members of the staff, which the respective observers attach to the several observations made by them :—

Name.	Initial.
Vinayak Narayan Nene	V. N.
Ganesh Sadashiv Joshi	G. S. J.
Shitaram Vithal Bendarkar	S.
Narayan Sakharam Kelkar	N.
Gopal Pandurang Subnis	G. P. S.
Damodar Vaman Sathaye	D.
Bhalchandra Krishna Fagre	B. C.
Sakharam Balaji Bapat	S. B. B.
Vishnu Balkrishna Achwal	A.
Padmakar Waman Sirdeshpandye	P.
Purushottam Anant Ghaneker	G.
Mukundrai Virshanker Unakar	M.
Waman Vinayak Nene	W. V. N.
Keshav Damodar Sathaye	K.
Balkrishna Pandurang Mayekar	B. P. M.

7. System of Observation, at Colaba.

(a) *Daily routine Operations.*

Magnetical, meteorological and seismological observations are taken every day including Sundays at the hours 6, 10, 14, 16 and 22 : the day commencing at midnight, Bombay (Colába), is reckoned from 0 to 24. The time of observation of each element is fixed and the observations are registered with strict punctuality as follows :—

From 5 minutes to the hour to 2 „ after the hour.	Extent and description of clouds, state of the weather, occasional phenomena, and direction of the wind.
At 2 „ „ „ „	Thermograph standard thermometer, dry bulb.
	Do. do. wet bulb.
„ 3 „ „ „ „	Newman's rain gauge (in wet season).
From 5 „ to 7 „ „ „ „	Thermometer in ground 1 inch deep.
	Do. do. 9 inches deep.
From 7 „ to 9 „ „ „ „	Newman's standard barometer No. 58 and attached thermometer.
	Do. „ No. 48 and do.
At 12 „ „ „ „	Grubb's declination magnetometer.
„ 14 „ „ „ „	Grubb's horizontal force magnetometer and its thermometer.
„ 16 „ „ „ „	Vertical force magnetograph No. 2 and its thermometer.
„ 17 „ „ „ „	Vertical force magnetograph No. 1 and its thermometer.
„ 18 „ „ „ „	Declination magnetograph.
„ 19 „ „ „ „	Horizontal force magnetograph and its thermometer.

At	20 minutes	after the hour Thermometer attached to barograph.
From	29 „	Thermometers in the Milne's seismograph
to	32 „ „ „ „	room and Milne's seismograph Zero reading.
At	34 „ „ „ „	Surface thermometers in the sun 1 and 8 inches deep.

The maximum and minimum thermometers in the thermometer shed, as also the solar radiation thermometer, are read twice daily at 8 and 16 hours.

Observations made once daily include readings of (1) the vacuum gauges of the magnetographs, (2) the maximum and minimum thermometers in the magnetograph room, (3) the ground thermometers 20, 60 and 132 inches deep, (4) the nocturnal radiation thermometer and (5) the maximum and minimum thermometers in the vertical movement seismograph room. (1) and (2) are read at 10 hours—the maximum and minimum thermometers being reset immediately after, (3) are read at 14 hours, (4) at 8 hours and (5) at 16 hours both being reset immediately after. Newman's rain gauge is read daily at midnight during the monsoon months and the discharges of the syphon of the selfregistering pluviograph are also read once or oftener as required. The electric clock is duly regulated by comparison thrice daily with the sidereal clock. Government chronometers, belonging to the Royal Indian Marine and Royal Navy, in store at the Observatory and those received from merchant ships in harbour are wound daily or as required, and comparisons with a correct clock are made with sufficient frequency to render the instruments always ready for issue at call with well-determined rates.

(*b*) *Weekly routine Observations.*

Double sets of observations of vibration and deflection are made with the unifilar magnetometer every Wednesday for the determination of absolute horizontal force. The same instrument is used every Thursday for the determination of declination. Observations for magnetic dip are made five times in a week—treble set on every Tuesday and double set on every Friday. Transit observations of stars for the determination of time and the errors and rate of the sidereal clock are made on Mondays, Wednesdays and Fridays in the dry months of the year. During the monsoon months no opportunity is lost for observing either the sun or the stars whenever visible. The adjustment of the Transit instrument is tested frequently by reference to the fixed collimator mark—the errors of collimation, level, &c., being determined from time to time or whenever the collimator showed a displacement of the telescope or any considerable discordance appeared in the clock errors derived from observations of stars of different north polar distances.

(*c*) *Monthly Observations.*

Regular deflection observations for the scale-coefficients of the two vertical force magnetographs are made with the deflector on the North side only at 2·5 feet position, about the middle of every month between 18^h and 24^h, the deflector used being tested on the Electrometer Tower the day following.

The magnets of Grubb's declination and Grubb's horizontal force magnetometers are vibrated through a large arc (but less than 1°) about the 20th day of every month, and the accuracy of return to the original position is carefully recorded.

(*d*) *Quarterly, Half-yearly and Yearly Observations.*

Once every quarter the weekly intensity observations are supplemented by observation of the magnet with its inertia cylinder.

Once every six months the usual monthly deflection observations of the vertical force magnetographs Nos. 1 and 2 are supplemented by observations with the deflector on the South side also.

Once every year the same series of observations are repeated for the two vertical force magnetographs and horizontal force magnetograph with the deflector at various distances on each side of the magnet.

The time of vibration of Grubb's Declination and Horizontal Force Magnetometers are determined once a year.

8. General description of the magnetical and meteorological instruments at Colaba, their adjustments and the process of reduction.

The following details show the special circumstances in connection with the condition, situation and adjustments of the various instruments, as also the habits of the observers and their routine processes of reduction, to enable the reader to form an independent judgment as to the reliability of the observations and the degree of precision attained in the results.

(*a*) Meteorological Instruments, 1902 to 1905.

Standard Barometer.—The barometer fixed on the eastern wall of the magnetical observatory a few feet from the north-east corner of the room is by Newman, No. 58, and has been in uninterrupted use since the establishment of the Observatory. Its tube is 0·53 inch in diameter. The cistern, which is of glass, is 37 feet above the mean sea-level at Colába. The brass scale is moveable and terminates at the lower end in a point of ivory which for every observation is set so as just to meet its reflected image as seen in the mercury. The scale is primarily divided to 0·05 inch and by means of a vernier, 0·002 inch can be read off. To the moving vernier are attached two small brass plates one in front and one behind the tube. The setting of the instrument consists in raising or lowering the vernier until the lower edges of the brass plates appear just to cut tangentially the convex surface of the mercury in the barometer tube, the line of sight being so regulated in height as to coincide with the edges. A thermometer with a cylindrical bulb dips into the cistern and was in use up to 1884, but in an investigation described in the "Bombay Magnetical and Meteorological Observations, 1871 to 1878," it was discovered that the readings of the thermometer, as measuring the temperature of the mercurial column, were considerably erroneous and the use of the thermometer was discontinued. From the beginning of 1885 a thermometer by Murray and Heath, No. 2, divided to half degrees with its bulb immersed in a column of mercury held in a glass tube of nearly the same diameter as that of the barometer tube, was fixed to one side of the barometer, and readings of this thermometer have been used since 1885·0. The error of the attached thermometer varies by about a quarter of a degree within the annual range of the temperature of the barometer, and in adopting a mean error throughout, small pressure corrections of $\pm$ ·0003 have been disregarded.

The barometer was lifted down in 1866 and the mercury carefully run up to the top of the tube when it gave the sharp metallic click that is indicative of a good vacuum. It was replaced carefully in its position, the tube &c., being kept in proper adjustment to verticality. The barometer is of the particular class, a description of which occurs at page 56 of the "Report of the Committee of Physics of the Royal Society, 1840," and therefore the scale of the barometer is laid off from the zero point from an authentic standard.

Since 1841 when it was first mounted, there has been a gradual accumulation of scum on the surface of the mercury in the cistern, and the glass cistern became more and more opaque until the setting operation of the ivory zero point of the scale became a matter of difficulty and some uncertainty. For this reason the usual method, as described, was changed on the 22nd May 1866. On that day the zero of the scale was set *once for all* and the setting screw removed, and suitable corrections for capacity were thenceforward applied to the readings. These were taken from a table derived from the following formula:—

$$\text{Capacity correction} = \cdot 04321\ (h_0 - 29\cdot 943)$$

'h_0 represents the uncorrected reading'

data for the construction of which will be found in the "Bombay Magnetical and Meteorological Observations, 1865—70." Introduction, pp. x, xi.

As the fluctuation of the barometer reading from its mean value very rarely reaches ·4 inch, requiring a correction of ·017 inch, it seems very improbable that an error of so much even as ·001 inch occurs from any inaccuracy in the adopted values of the relative capacities of the tube and the cistern. Since the change was effected, the comparability of the observations for showing variations is on that account throughout much better secured.

The depression of mercury due to capillary action in a tube of ·53 inch diameter being small, no correction is applied on this account.

On 30th July 1875 it was discovered that the vernier scale of the barometer was short by ·002 inch. To correct the errors arising from this fault instructions were issued to note the positions of coincidences at ·000 and ·050 of the vernier scale with the scale of the barometer and also the non-coincidences at the above scales when the barometer reading was in exact half-tenths of an inch. It became then an easy matter to construct a table of corrections and to apply them for all positions of the vernier. These corrections have throughout been applied since then.

The barometer is read daily including Sundays at $7^{m}\frac{1}{2}$ after the hours of observation—6, 10, 14, 16 and 22. Each reading is corrected by the application of the temperature correction—reducing the temperature of the mercury column to 32° F. and that of the brass scale to 62° F. Another correction is applied to remove the error of discontinuity due to the change of thermometer. The first correction is made by means of Table II of the Report of the Committee of Physics of the Royal Society, the second by a constant reduction of the corrected pressure by ·002 inch. The considerations on which the latter correction is based, are as follow:—(1) the tabulations of the barograph are known to exhibit correctly the diurnal variations of barometric pressure, free from any sensible influence of variations of the temperature of that instrument; (2) the mean of twenty-four hourly barograph tabulations on any day is taken to correspond to the mean of the same twenty-four hourly pressures observed with Newman's barometer No. 58 and corrected for the temperatures indicated by the old attached thermometer; (3) it does not follow that the mean of the tabulations for the five observation hours (6, 10, 14, 16 and 22) will then correspond exactly to the mean of the observed pressures for the same hours, because the old thermometer does not indicate precisely the actual variations of temperature of the mercurial column: in fact the latter mean pressure was, on the average of all the observation days of the year 1872, ·0008 inch in excess of the former mean pressure; (4) nevertheless the correspondence for the five observation hours was adopted as near enough to indentity with the correspondence for the twenty-four hours, and the recorded mean pressures of the years 1873 to 1884 will thus be ·0008 inch in excess of those of the years before 1873; (5) the old attached

thermometer and the thermometer No. 2 by Murray and Heath were read together at the five observation hours throughout the year 1883, and the average excess of the former reading over the latter was found to be 0°·62; (6) hence to make the pressures reduced for the readings of Murray and Heath No. 2 correspond to those reduced for the readings of the old thermometer the former pressures must be decreased by ·0027×0·62=·0017, or—as the pressures are read and calculated only to thousandths of an inch—by ·002 inch. Thus taking the period before 1873·0 as a standard period, the recorded annual mean pressures of the years 1873 to 1884 will be ·0008 inch too high, and those of 1885 and later years ·0005 inch [=−·0020+·0017+·0008] too high.

Indirect comparisons of the barometer have been made with the Kew standard by means of two mountain barometers by Negretti and Zambra, numbered 705 and 711, when they were both found (in July 1876) to read ·011 inch higher than the Observatory standard. In England, however, they had been found to read ·007 and ·006 respectively higher than the Kew standard. Hence on an average the Observatory standard barometer read ·004 below the Kew standard. It happens that this is exactly the average amount by which the readings of Newman's barometer have been over reduced for temperature (*vide* Introduction to the Bombay Magnetical and Meteorological Observations, 1871-78, paragraph 72).

Barograph.—The photographic barometer stands separate on two pillars in the magnetograph room. It was supplied through the Kew Committee of the British Association after being tested at the Kew Observatory, and is similar in construction to those adopted by the Meteorological Committee of the Royal Society for the seven observatories established by them in the United Kingdom in the year 1867. The barograph has been treated as an independent instrument in respect of the variation of pressure occurring in the course of a day, but only as an auxilliary to Newman's standard barometer, No. 58, in respect of mean daily pressures. The excess of the mean of the five observations of the standard barometer made daily over the mean of the corresponding five barograph tabulations has been used as a correction to the mean of the twenty-four hourly tabulations for the same day, a new correction being calculated for each day. A detailed account of the instrument and its particulars and adjustment is given in the "Bombay Magnetical and Meteorological Observations, 1871 to 1878, pages xvi to xlvi."

Thermometers.—Standard Dry Bulb.—The thermometer is by Casella and marked No. 401: it is a mercurial thermometer, with a cylindrical bulb 3·7 inches long and about 0·37 inch in diameter. The stem is graduated and divided into degrees: the range is from 0° to 120°, measuring 12·36 inches; and the bulb is freely exposed to the air. It is placed in the cage of the thermograph shed about 5 inches from the thermometer which records photographically and is similarly exposed.

Standard Wet Bulb.—This is also a mercurial thermometer by Casella No. 402, and has a cylindrical bulb 3·7 inches long and 0·37 inch in diameter. The thermometer is graduated on its stem and is divided into degrees with a range from −10° to +120°, measuring 13·03 inches. The bulb is covered with muslin, and is kept moist by the capillary action of a bundle of fine cotton threads immersed in a small vessel of water near the thermometer bulb and passing loosely round the thermometer stem just over the bulb. The same vessel of water supplies the evaporating fluid to the photographic wet bulb placed about 3 inches distant.

The errors of the above standard thermometers have been carefully found and corrections duly applied. The errors were determined by a Kew standard (No. 368) thermometer in February and March 1875, at fourteen points ranging between 32° and 102°, and the readings were found to be within 0°·1 of the truth.

On 20th December 1877 the errors of the freezing points were also tested, showing no noticeable change (*vide* paragraph 53, Table 10 of the Introduction to the Bombay Magnetical and Meteorogical Observations, 1871 to 1878).

Photographic Dry Bulb and Wet Bulb.—The height of the bulbs of the thermometers of the thermograph above the ground is 10 feet. The cage is placed on one of the most exposed parts of the Observatory grounds and away from any building; it is, however, screened, as is also the thermograph room in which the recording apparatus is placed, by a roomy shed with a planked roof which is everywhere 2 feet above the roofs of the cage and room: the sides of the shed are of the louvre construction, with double sheets of zinc enclosing a thick layer of felt substituted for wooden laths, and with a vertical distance from lath to lath of one foot: the lowermost two feet of the sides are guarded simply by horizontal iron rods: the roof of the shed is covered with thick felt and then with strong canvas, and the whole of the exterior—sides and roof—is painted or limewashed white.

Ground Thermometers.—Thermometers with their bulbs at the respective depths below the surface of the ground of 1, 9, 20, 60 and 132 inches are regularly observed, the first two five times a day and the other three once a day at 14 hours. They are all by Newman, of London, and are divided on brass scales. The value of one division, approximate range of part of scale exposed above ground, and lengths of that part and of one average degree are shown below for each thermometer:—

Depth of Bulb.	Divided to	Approximate Range of exposed part of Scale.	Length of that Range.	Average length of 1°.
Inch.			Inches.	Inch.
1	1°	30° to 145°	8·19	·071
9	0°·2	70° to 115°	5·20	·116
20	1°	35° to 160°	6·73	·054
60	1°	35° to 160°	6·81	·054
132	1°	50° to 140°	6·44	·072

The 1-inch and 9-inch thermometers are on flat brass scale frames, which lie against wooden posts in the ground, and they have their bulbs in contact with the loose red earth which fills the holes in which they are placed; the 20-inch, 60-inch, and 132-inch thermometers have their lower parts enclosed in brass tubes with ends curving off to a point, and the upper parts are in wooden box frames, to which the brass scales are fixed. The reason why only one observation is made daily of the three deeper thermometers is, that it had been found by hourly observations in 1849, 1850 and 1851, that no appreciable diurnal variation of temperature reached the depth of 20 inches.

The errors of graduation of the ground thermometers are unknown.

Robinson-Beckley Anemograph.—From the establishment of the Observatory till December 1865 a rough pressure anemometer was in use. This was replaced by a small anemometer by Robinson which remained in use up to June 1867. From the beginning of the month of June 1867 was brought into use an anemograph of the kind designed by Robinson, with improvements by Robert Beckley, and it remains in action to this day. It was made by Mr. R. W. Munro, and was supplied through the Kew Committee of the British Association, after being tested at the Kew Observatory. In this instrument the arrangements for the registration both of movement and direction of the wind are mounted on one shaft, and the registrations are made on a single sheet of paper, which is changed daily. The essential part of the apparatus for measuring the movement is a vertical spindle, to which cross arms are

attached at the top, carrying four hemispherical cups of copper. The cups are attached to their several arms, so that, looking from the central axis, their convex sides are seen turned to the right hand, and the wind, acting with greater effect upon the concave than on the convex sides of the cups, causes the system to rotate in a right-handed direction. It is the number of these rotations, 140 of which are reckoned to a mile of movement of the wind, that tells us how fast the wind has been blowing; and the number is reduced, by means of wheel-work, 7,000 times before reaching a small cylinder, carrying a brass spiral pencil that traces the movement on the registering paper; this latter is metallic paper of the kind used for pocket-books, and is wrapped round a brass cylinder, which is kept rotating by clockwork, and as the paper passes under the spiral pencil which presses lightly upon it, the black movement trace is received upon it. The wind vane, which consists of a pair of windmill vanes with connecting spindle having an endless screw in the middle and gearing into a fixed horizontal toothed wheel, is attached to a tube that surrounds the lower part of the vertical movement spindle; to the bottom of the tube is fixed a toothed wheel, which, in communication with other such wheels, conveys the motion of the vane *unchanged* to a small cylinder with spiral pencil, which traces the changes of direction on the register; and it is so arranged that the movement and direction are traced on parallel strips or bands of the same sheet of paper which is changed daily at 10 hours. The heavy parts of the instrument—the direction vane and appendages, and two long brass tubes which connect the instrument proper with the recording apparatus—are supported on friction balls which run in grooves partially filled with oil, thus reducing the friction to a minimum. The instrument is erected on the old Time Ball Tower, at a height of 53 feet above the ground, and 95 feet above the mean sea level, over a platform 12 feet in diameter, which is designed to give ready access to the instrument, and to protect it from irregular currents of wind, glancing from the convex surface of the dome; and it is supported outside by a fixed cast-iron standard, to which is attached, at the top, the toothed wheel, into which the endless screw of the spindle connecting the windmill vanes gears. The centres of each pair of opposite hemispherical cups are four feet apart, and three and a half feet above the platform, and the diameter of the cups is nine inches. The diameter of the vanes is 15 inches, and the breadth of the fans four inches. The register form is printed in red, with lines dividing its length into hour spaces; and its breadth, on the movement side, into five spaces, each representing 10 miles of movement of the wind, and numbered from 0 to 50 miles; and on the direction side, into spaces corresponding to 11¼ degrees on each side of the 16 principal directions N.N.E., N.E., &c.....N.N.W., N., which spaces are numbered consecutively 1, 2, &c.....15, 16.*

Tabulation of Anemograms.—Numerical tabulations have been made of the movement and direction of the wind during the interval between every two successive hours in the following manner:—the number of miles indicated at the point where the velocity trace cuts a horizontal hour-line being read for two successive hours, the excess of the latter over the former reading (adding 50 if the trace has passed over from left to right of the form) gives the movement for the interval; and the number of the space in which the direction trace lies during the interval is entered as representing the direction. The estimations of movement are made only to the nearest full mile. Should the direction trace not lie all in one space during the whole interval of an hour, then if the change of direction exceed 90° or eight points, the whole observation for that hourly interval is rejected; but if it lie within that limit, the direction is estimated—by an inspection of the movement and direction traces together—whence the aggregate flow of air was the greatest and this direction is adopted for the

* A more detailed account of the Colába anemograph will be found in the "Bombay Magnetical and Meteorological Observations, 1865 to 1870," Appendix I, page 199.

full hour. On the average of the years 1871 to 1905, out of 8,754 hours during which the instrument was in action, 2 only had to be rejected because the direction of the wind varied more than eight points within the hour.

Method of reduction.—Hitherto we have had to speak of phenomena liable only to simple increase and decrease of value, and not subject to any change of quality. Such phenomena being properly and completely evaluated by simple numbers, we may apply to the numbers any arithmetical operations, such as averaging, and infer from the results of those operations corresponding properties of the phenomena. But we have now come to a phenomenon which requires two numbers to express it, one representing its amount and the other a varying quality; the first referring to the velocity, and the second to the direction of the wind. Here we may no longer apply arithmetical processes directly and indiscriminately to the observed numbers: but, the subject being one of motion, we must treat them according to the principles of the science of motion. These principles tell us that the motions may be equally well expressed by means of two varying numbers referring to two invariable qualities, as by a varying number referring to a varying quality; and they show us how to obtain either form of expression from the other. The invariable qualities chosen in the present case are the directions north and east, the actual wind blowing in each hour being resolved into north and east components, which may be regarded separately as the velocity of the wind in the invariable direction north or south, and the velocity of the wind in the invariable direction east or west The resolutions are effected by means of the formulæ—

$$\text{North component of velocity of wind} = m \cos (n \times 22\tfrac{1}{2}^\circ),$$
$$\text{East component of velocity of wind} = m \sin (n \times 22\tfrac{1}{2}^\circ),$$

where m is the movement observed, and n the number of the direction space under which the wind of the hourly interval is classed. When the sign of either of these calculated quantities is negative, it implies that the wind blows from the opposite direction, *i.e.*, from south or west. The calculations are readily made by means of tables to the nearest tenth of a mile of velocity per hour. Having now substituted the two equivalent winds for the real one, we may with propriety proceed to combine together numbers of observations by algebraical addition and averaging, treating the north and east components of the wind each by themselves. The averages thus found from the observations of any given period will represent the velocity with which the wind must blow from the northward (from the southward if the sign of the average be negative) continuously for the whole period, in order that the total movement of the wind from that direction may be the same as the total movement from the same direction produced by the winds which actually blow, and similarly the velocity with which it must blow continuously from the eastward (westward if the sign of the average be negative).

No corrections have been applied to the anemograph tabulations on account of friction.

Dines's Anemometer.—This instrument by R. W. Munro of London was received in January 1897 and fitted up in February on the same tower on which the old Robinson-Beckley Anemograph is fixed, and it has been in action since then. The fixture is so arranged that the one instrument does not in any way interfere with the action of the other. The anemograph is fixed about 3 feet high centrally on a flat platform on the top of the old Time Ball Tower and the pressure tube anemometer is located on the edge of this platform on the north-east side—the distance between the two instruments being the radius of the platform—about 6 feet. The vane of the latter is placed about 6 feet above the platform, so that it is about 3 feet above the level of the cups of the anemograph. The tower is 53 feet high from the ground and 95 feet above mean sea-level and,

looking at the exposed position of the tower, the two instruments have been placed in as identically analogous conditions as was possible under the circumstances. The new instrument consists of two main parts, the "head" and the "recording apparatus." The "head," which is fixed on the top platform, is composed of two parts, the moveable and the fixed. The former consists of a hollow tube (1 inch in diameter) to which is attached at right angles at the top and opening into it, another similar tube open at one end and closed at the other, where the vane is attached. The fixed part consists of three concentric tubes forming two annular spaces. The central tube, which stands higher than the middle tube by about ·7 inch, is supported a little below the top of the middle tube by two radial pieces and being closed at the top it serves as a pivot and support for the moveable part which just fits but turns freely round the middle concentric tube as axis. The moveable part thus opens into the inner annular space. The outer concentric tube, which is considerably shorter in length than the middle one, has some fine holes bored into the sides, the annular space between it and the middle tube being closed at the top. As the wind vane attached to the moveable tube keeps the latter always facing the wind, the action in the inner annular space is compressive as the wind blows directly into it, while in the outer annular space the air as it rushes past the small holes produces a suction effect resulting in decrease of pressure.

The recording apparatus consists of a large cylindrical vessel almost air-tight, filled with water to a certain level. In this is introduced a specially constructed hollow copper float, open from below and weighing about 31,900 grains, which rises or falls in response to the change of pressure of the air in the cylinder above the float and of the air within the float, caused by the action of the wind which is communicated from the "head" to the recording apparatus by two tubes (40 feet long) led by gentle curves from the former to the latter. The tube which is attached to the suction part of the "head" enters the vessel from the top lid, the other leading from the vane tube opens into and reaches the top part inside the float. As the action of the wind in the former space is to reduce the pressure, the float becomes more buoyant and rises, while the action of the wind inside the float causes increase of pressure, and thus co-operates in raising the float. The float ends in a narrow smooth rod which, passing through an almost air-tight vulcanite collar in the top lid, carries a small cup with attachment of pen, &c. On the top of the lid, a little removed from the recording pen, is fixed a small cylinder with clock-work, carrying the paper chart. The pen is so attached as just to fall on this paper by its own weight to avoid unnecessary friction between the two. When the float is put down, the pen is adjusted by the lifting screw to coincide with the zero line on the chart. The float when let go rises, carrying the pen with it, which is again brought carefully back just to the zero line by the addition of small weights in the cup. The fluctuation of pressure inside the cylinder caused by the wind is thus recorded. The peculiar construction of the float makes the upward force measured in units of velocity to vary uniformly with the ordinate: thus a velocity of 10 miles gives an ordinate of ·6 inch on the chart, that of 20 miles 1·2 inches, and so on.

Tabulation of the Anemograms.—Numerical tabulations are made in a table in which the days of the month are marked in numerical order in the first vertical column and the hours of the day at the head of the succeeding 24 columns where the hourly averages are entered. The twenty-sixth column gives the sum and the next column the mean hourly velocity for the day. At the bottom of the table columns are provided for the sums, means and variation. The determination of the hourly average is generally done by inspection, the hour when necessary for accuracy being sub-divided into convenient divisions. The average of these divisions is taken as the mean hourly velocity, due weight being given to the

time of each sub-division. In very complicated movements and doubtful cases the planimeter is used to check the inspection results.

Four photolithographic copies of the velocity chart shown in Vol. XXXVI of 1897 at page x represent different but typical characters of the wind. The first shows the character of the wind during a thunderstorm day, the second during a somewhat gusty day, the third during a somewhat stormy day, and the fourth during a typical usual day.

Rain gauges.—Newman's rain gauge, which has been in use since 1845, is made of copper and exposes for the collection of rain-drops a circular surface of an average diameter of 12·035 inches, forming the top of a funnel, which opens into a cylindrical vessel below, having a diameter of 5·732 inches: a float of slightly less diameter, so as to rise and fall freely, rests upon the water in this vessel, and having a wholly convex external surface, it allows the rain as it falls to flow off and raise the level of the water and with it the float. To the middle of the float is fixed a wooden rod, graduated with divisions, each of which represents ·05 inch of rain; and the readings of this scale, which are easily estimated to fifths of a division, are made where it is cut by the upper edge of a light brass rod placed horizontally across the mouth of the funnel, but half an inch below the edge of the exposed circular surface; the scale passes through a hole in the middle of the horizontal rod, and is thus kept always in a vertical position. The range of the scale is from 0 to 4·00 inches, and the readings of the scale are entered in the meteorological register and the differences taken for every interval between successive observations: the rain is allowed to accumulate in the vessel generally till the reading is somewhere above 2·00 inches, when the water is let out, by means of a brass cock at the bottom, till the reading comes down to 0·00 inch. This latter reading is always maintained during intervals of dry weather—when, from evaporation, the scale would otherwise fall lower—by pouring small quantities of water into the gauge; the reason of this is obvious, as, if some water were not always retained, the float would sometimes rest on the bottom of the vessel and so cease to perform its function of rising equally for equal increments of rain. The scale on the wooden rod was graduated so as to agree approximately with the data—the diameters of the gauge and measuring vessel—given above. The error of the scale according to which the rod was graduated was less than a thousandth of the whole.

Newman's gauge stands on a large rectangular block of stone, in a position intermediate between the Entrance Gate, the Magnetical Observatory, and the Thermograph Shed, where the altitude of the highest neighbouring object, as seen from the gauge, is about 30°. It is supported by three feet, which are embedded with lead in holes cut in the stone block, and its circular mouth is at a height of 4½ feet above the ground and about 35 feet above the mean sea level.

Photographic rain gauge.—A description of this instrument also will be found in the Introduction to the "Bombay Magnetical and Meteorological Observations, 1871 to 1878," page xlvi. In the years 1902 to 1905 the syphon discharges were received in glass bottles and measured by means of a graduated glass tube and a marked glass bottle holding exactly half an inch of rain.

It was mentioned in former years that the occurrence of the discharging action of the syphon was occasionally liable to some uncertainty—the water at times trickling over the bend of the tube in considerable quantities before the proper discharge commenced. After trial of many modifications in the form of the syphon one was at last hit upon, which is free from this fault and moreover, keeps the tube in a satisfactorily clean condition from beginning to end of the monsoon simply by the washing that takes place in the

ordinary automatic discharges. Since November 1884, when the new syphon was brought into use, the discharges have been regular and have failed on very rare occasions. To prevent birds alighting upon the funnel, and choking it with their droppings, a conical arrangement of pointed iron spikes surrounding the funnel was attached in 1882, and was found to be effective.

Constants for converting syphon discharges into inches of rainfall.—As the surface exposed by the rain gauge funnel is 50·286 square inches, an inch of rain contains 823·955 cubic centimeters. With the aid of a cubic centimeter measure* 412 cubic centimeters of water were poured into a narrow-necked glass bottle and a file mark was made on the neck at the level up to which the water rose. A glass tube was also graduated by means of the same cubic centimeter measure, so as to read off thousandths of an inch of rain with ease. The bottle is filled as often as there are discharges from the rain gauge syphon, and the final excess or defect is measured with the graduated tube. The use of the bottle began on 31st July 1879 and continued till the 26th July 1884, when it was accidentally broken. An exact copy of it, which had been prepared beforehand, was then substituted for the original bottle and is still in use.

Measurement and distribution of syphon discharges.—The discharges are measured daily, or oftener during heavy rainfall, and are, of course, always of an integral number. For each measurement the average value of a discharge is attributed to each of the intervals of time, shown on the rain curve, between pairs of successive discharges; and it remains then only to distribute this quantity, for each filling of the receiving vessel, by means of tabulations of the ordinates of the rain curve. When, as is often the case, the rate of fall of the rain at the time of a discharge exceeds $1\frac{1}{2}$ inch per hour, it is necessary to allow for the rain that enters the receiving vessel during the known time (16 seconds) of discharge, the allowance depending on the rate of rainfall, which is easily estimated for this purpose by noting, with the aid of an appropriate paper scale, the inclination of the rain curve immediately after the time of discharge. The aggregate of such allowances is deducted from a day's (or other) measurement before dividing the quantity equally amongst the several intervals.

Determination of scale of Rainfall ordinates.—The factor for converting ordinates of the rainfall curve into inches of rainfall was found by experiments in which a determined weight or volume of distilled water was poured into the receiving vessel, and the change of length of the ordinate produced thereby was carefully measured. In an experiment made on 31st May 1902, the quantity of water poured into the vessel was equivalent to ·480 inch of rain and the change of length in the ordinate ·480 of a true inch; whence the factor is found to be 1·000, which is applicable to all the rainfall registrations of the year 1902. In similar experiments made on the 6th June 1903, 18th June 1904, and 20th June 1905, a precisely similar factor was obtained which was hence made applicable to all the rainfall registrations of 1903 to 1905.

The tabulations are made with the true-inch scale of the thermograph tabulating instrument, using the white line as datum; and the reading of this datum that corresponds to the reading ·000 of the rain curve, when the receiving vessel has just been discharged, is re-determined whenever the adjustment of the recording apparatus is disturbed. For this purpose an average is taken of a number of measurements for all of which the rain is falling very slowly at the time of the syphon's coming into action and for a short time longer. It is necessary to select such occasions, because at times of heavy

* Lent by Mr. F. Chambers, whose verification data show it to be accurate to a thousandth of the 100 cubic centimeters which it is designed to measure.

rainfall the curve has risen sensibly before the light has had time to make a distinct impression on the sensitive paper. The mode of tabulating is (1) to set the scale on the constant reading corresponding to the white line, (2) to move the sliding piece until the index is set upon the white line, and (3) to move the sliding bar till the index is set upon the curve, and then read the scale. By setting the paper carefully, so that a considerable length of the white line is practically parallel to the lateral motion of the frame, the repetition of the first two operations of tabulation is avoided until many hourly ordinates have been read; and then a new setting of the paper is made for another stretch of the white line.

(*b*) Seismological Instruments, 1902 to 1905.

Milne's Seismograph.—This instrument, No. 12, supplied by R. W. Munro of London, was mounted in September 1898, in the small building formerly used for electrostatic observations which was materially altered in order to suit the requirements of a seismograph installation. It consists of a single room 10 ft. square with a double folding door on the south side and a single large window on the north side. It is 14 feet high up to the eaves with a gable roof, and is well ventilated by adjustable openings made in the walls near the ground and in the gable ends at the top. The pier is placed in the middle of the room. Its foundations run 5½ ft. below the flooring, at which depth a huge basalt boulder was struck, over which was laid a bed of concrete 5 ft. square and 2 ft. deep. This bed supports a mass of rubble masonry 4 ft. square and 1½ ft. deep, which finally carries a brick pillar 1½ ft. square and 5½ ft. high. The pillar is plastered with cement and carries a ½-inch marble slab at the top. The horizontal pendulum seismograph consists of a boom made of a light aluminium rod supported at two places. One end of the rod abuts against an adjustable pivot at the base of the "vertical," and at a distance of about 2·3 inches, which was changed in September 1901 to 5·0 inches, from this end the rod is held in a horizontal position by a platinum wire passing over the "vertical," which carries suitable adjustable screws at the top. For free motion a short piece of unspun silk is attached to the platinum wire at the top; and to steady the movement of the boom, which is very light, as also to obtain steady point, a balance weight is suspended on a stirrup fixed at about 2 inches, which was changed in September 1901 to 4·3 inches, from the pivot end. The boom carries at the outer end a rectangular plate with a short slit cut parallel to the boom through which light from a lamp is reflected by a suitable mirror on to the film in the recording box which has a corresponding slit, but cut at right angles to the former, thus allowing only a point of light to affect the film.

The base of the "vertical" is formed by an iron triangular bed plate with three levelling foot-screws. One of the screws is finely divided with a pitch of 0·5 m.m. which serves for final adjustment. The bed plate is so placed on the pillar that two screws (including the adjustment foot-screw) are located due E.—W., while the third points to North. The distance between the first two is exactly 150 m.m. and therefore a complete turn of the adjusting screw raises or lowers that end by 0·5 m.m. or through an angle $= \tan^{-1}\frac{1}{300}$. A lever attached to this screw with a scale enables it to be turned through 1°, 2°, or any other fraction of a complete turn. This, with the usual sensibility of 3·5 m.m. for a 1° turn of the screw, allows of the determination of the tilt up to 0·3″ of arc measured by a deflection of 0·5 m.m. on the seismogram. The clock-work drives a roller, which pressing lightly against another friction roller allows of a strip of sensitive film being carried between them at a uniform rate of about 59 m.m. per hour. A small watch placed on the recording box, with its long minute hand carrying a small plate which extends to about 11 m.m. over one end of the slit of the recording box, produces an eclipse every hour at

30 minutes past the hour, cutting off the light at that end of the slit. By carefully watching the beginning and end of the eclipse by means of a chronometer, the exact time of the centre line of the white mark left on the sensitive film by the eclipse can be easily read off on the seismogram. Plates Nos. *1 to 19* show the principal disturbances recorded. Air tremors are frequent and troublesome at night especially during the winter months. But the precaution of burning lamps regulating the temperature and draught in the room, initially suggested by this Observatory as a successful method of eliminating this form of disturbances, has proved fairly effective, and the traces are free from this source of vitiation,

The Colába Seismographs.—The Seismographs designed and constructed locally are installed in the building formerly known as the small magnetic room altered to suit the requirements of the installation. They are mounted on an isolated pillar 1½ ft. square and 7 ft. high with its foundation on a rock. No. 1 is oriented N.—S. so as to record E.—W. movements, while No 2 is oriented E.—W. to record N.—S. movements.

The essential parts of the two horizontal pendulums as finally devised consist of metal boom about 3 ft. long, one end of which carries a steel point abutting against a shallow cup of agate fixed to a heavy screw in the pillar at a point about 6 ft. below its top. The boom at its other end carries a heavy weight (70lbs). The pillar at the top carries a thick iron slab in which are firmly bolted the slow motion adjustment screws, the steel bearings and the finely balanced pivot which receives the tie from the boom. The weight at the other end of the boom in No. 1 seismograph carries a moveable polished metal pin which receives a close but just fitting fork fixed at the short end of a finely balanced light lever which allows of the magnification of the movement up to 1 to 12. The length of the longer arm is 2·5 ft. and the shorter arm is made adjustable to give a varying magnification from 1 to 7 to 1 to 12. The longer arm at its other end carries an agate bearing to receive a very small balanced pen* on a knife edge. The record is taken in glycerine ink with a crow quill on paper round a cylinder (5 inches in diameter) running on a helical axis in connection with clock-work. The cylinder while completing one revolution in one hour advances $\frac{1}{10}$ inch, which enables a continuous record being taken for 24 hours. With a suitable electromagnet and connection with an electrical clock the time is recorded on the paper every 20 minutes, which with the regular motion of the cylinder and the clock has been found to give sufficiently accurate time for all practical purposes.

The instrument is brought into adjustment by the lower pivot screw which moves in and out enabling the period to be regulated, while the adjustment screw at the top of the pillar, giving the slow motion to the point of attachment of the tie from the boom, allows the zero to be properly adjusted. The vertical distance between the points of attachment of the horizontal pendulum is 75 inches, and the distance between two consecutive threads of the adjustment screw traversed by a *complete* turn of the screw is $\frac{1}{16}$ inch from which the angle of the corresponding tilt is obtained by calculation. After suitable adjustment of the recording lever, pen, &c., the displacement of the pen corresponding to a tilt due to a complete turn or a fraction of a turn of the screw gives the sensibility of the instruments. For accurate work, with delicate instruments of this type which involve considerable friction, it was found advisable *every* day, at the time of change of paper, to measure the sensibility to tilt and to ascertain that it remained practically constant. As the instrument has been constructed locally, it was thought undesirable to use the upper adjustment screw oftener than was absolutely necessary, its use being restricted only to the correction of zero. The follow-

* The pressure exercised by the pen on the paper with the period usually allowed, varies from $\frac{1}{50}$ of a grain at the commencement of the record to about $\frac{1}{40}$ at the end of the record.

ing device, therefore, is adopted. The pillar is provided with a brass bar oriented E.—W., 1·5 and 4 inches in section and about 5 feet long, which is embedded in the pillar passing horizontally through it about a foot below the top. A similar bar is placed at right angles to the former and oriented N.—S. The arms of these two bars which project 1¼ ft. from the face of the pillar are daily used for supporting, for a few seconds, a weight of 7lbs. This weight placed at a certain distance on the arms produces a definite tilt in the pillar in the direction of the weight. This has been very accurately ascertained periodically from a series of careful experiments and equals 0·5 seconds in arc. The weight of 7lbs. is therefore used to produce this known tilt from which the displacement of the pen on the paper enables the sensibility of the instrument to be effectually controlled.

In the No. 2 seismograph, while all other parts are similar, the writing arrangement does not include the magnifying lever. Instead a long thin glass rod 6 feet long is similarly fixed to the boom so as to allow for adjustment of zero, &c. The other end carries as in No. 1 the balanced pen.

Seismograph for recording vertical movements.—This instrument was mounted in a specially constructed small building to keep the variation of temperature as small as possible. It has finally been removed to the underground magnetograph room. The instrument consists of a finely balanced lever with unequal masses at proportionate distances from the fulcrum. Instead of attaching the end of this balance directly to an Ayrton Perry spring, the balance is made to carry on one of its arms an agate plane supporting another small balance to one end of which is attached the fine Ayrton Perry spring suitably fixed at the top to the instrument. A mirror is attached to the spring and the beam of light which falls upon the mirror is properly focussed on the sensitized paper in the recording box. The large balance is adjustable to a period of 15 to 40 seconds, the free motion of which is not interfered with by the attachment of the Ayrton Perry spring.

The same paper takes another record to register the actual tilt of the ground. A lead tube 3·8 inches in diameter is laid E. W. in the floor of the magnetograph room The horizontal length of the tube is 22 feet and the ends are turned up vertically through properly constructed brick pillars 3 feet high at each end. The end of the tube which comes through the pillar at the east end is protected by a loosely fitting cover, while the west end of the tube opens just under the base plate of the recording instrument which is placed on the west pillar. The tube is filled with kerosine oil and thus practically forms a geodynamic level. A float just heavy enough to sink in the oil is properly adjusted and supported from the support of the instrument by a very delicate Ayrton Perry spring kept under tension sufficient to produce a rotation of about 180° of the mirror. From the area of the tube and its length the tilt can be ascertained experimentally by the addition of a known quantity of oil which causes a certain displacement of the beam of light on the paper and is constant for the existing factors for a float of a particular diameter. The present arrangement of float, etc., provides for a sensibility equivalent to 0″·4 for one millimetre.

(c) Magnetical Instruments, 1902 to 1905.

(At Colába.)

Kew Unifilar Magnetometer.—A description of the standard instrument No. 23 by Elliott Brothers, with which the observations of absolute declination and of horizontal intensity for the years 1902 to 1905 have been taken will be found on pages xxxiii to liii of the Introduction to the "Bombay Magnetical and Meteorological Observations, 1865-1870"; the description includes also an account

of the situation of the instrument, of the nature and routine of the observations taken with it—with examples of observation and computation forms filled up with the figures of actual observations—and of the formulæ of reduction and the constants involved in them.

The entries in columns 1 to 17 and 19 of the Tables of Observations of Absolute Horizontal Force are copied directly from the computation form: column 18 is given to show the degree of accordance existing in the determinations from deflections with the deflecting magnet at the respective distances 0·8 foot and 1·0 foot from the deflected magnet; and the numbers in column 21 are the products of those in column 20 multiplied by the constant number ·46108.

The description, referred to above, of the observation of absolute declination will render clear the meaning of the numbers entered in each column of the Tables of Observations of Absolute Declination: all of these, except the monthly means in columns 12 and 13, are taken directly from the observation form.

Kew Dip Circles.—A description of the instrument, and of the mode of using it, is also given in the Introduction to the "Bombay Magnetical and Meteorological Observations, 1865-1870," pages lvi to lix, and the following additional or corrective remarks will make it applicable to the observations of 1902 to 1905:—

(1) The place of observation has been the top room of the Electrometer Tower, the dip circle having been placed on the same pillar on which the Kew unifilar magnetometer is placed in the regular observations of absolute horizontal force and absolute declination. The reading of the azimuth circle of instrument No. 49 adopted for this place has invariably been 63° 31′, and of the new instrument No. 110, by Dover Charlton, is 59° 36′, determined in February 1897. An observation for the verification of the former reading was made on the 22nd February 1881.

(2) The dip needles used during the years 1902 to 1905 with the old instrument have been as follows:—

For the regular observations:—

Dover Charlton No 1. } 1902 to 1905.
„ „ No. 2. }

And for supplementary observations:—

Dover No. 3. } From 1st January 1903 to 16th February 1904, and from 28th July 1905 to 31st December 1905.
„ No. 4. }

Dover No. 1. } From 19th February 1904 to 25th July 1905.
„ No. 2. }

(2*a*) And with the new instrument intended for survey work the needles used were as follows:—

Dover No. 1. } In the years 1902 and 1904 and from 16th January to 1st July 1905.
„ No. 2. }

Dover No. 3. } From 31st July to 18th December 1905.
„ No. 4. }

(3) The final cleaning of the axles of the needles has throughout been made with a clean silk cloth.

(At Alibag, 1904 and 1905.)

Magnetometers.—There are two magnetometers observed regularly. The magnetometer No. 7 by Cooke and Sons is of the usual ordinary pattern of Kew instruments, modified by several improvements. The telescope is about 8″ in focal length with two eye-pieces of low and high power. It carries a level on the top, and a vertical motion is provided to the axis of the telescope

which allows of its being used as a Theodolite. The diaphragm instead of carrying the usual cross lines is fitted with an optically pure glass on which are engraved two scales vertically and horizontally. The magnet is carried in a light aluminium stirrup and a cross is engraved on a glass at the S. end, the N. end carrying the lens. The magnet is suspended by phosphor-bronze ribbon, instead of the usual silk fibres, by means of clip-chucks. A finely divided plummet is provided which is read by the telescope through a suitable collimating lens brought in position for the time in front of the telescope object glass. This provides for more or less perfect elimination of the torsion. Instead of a mirror being attached to the deflection magnet as in the Kew pattern instruments, the magnet is carried in a stirrup which also supports below the magnet and parallel to it a collimator aluminium tube with a lens and an engraved piece of glass as in the vibration magnet. The bar of the instrument is not divided, but a series of holes is bored in its upper surface at distances 22·5, 26·25, 30, 35 and 40 centimeters from the centre of the instrument. The carrier for the deflecting magnet to be placed on the bar has a small metal plug fixed centrally in the base which fits closely the holes in the bar and the setting of the magnet hence at the different distances does not require any adjustment whatever.

The other instrument is No. 3 by the Cambridge Scientific Instrument Company and is of the usual Kew pattern.

Instrument No. 7 is observed on the 2nd floor of the tower of the magnetic office, while instrument No. 3 is observed on the 1st floor, each instrument being permanently allowed to stand on its own pillar on the respective floors The result of long comparison of the instruments shows that No. 7 reads 2γ higher, while No. 3, 1γ lower than the Colaba standard magnetometer by Elliot.

The entries in columns 1 to 17 and 19 of the Tables of Observations of Absolute Horizontal Force are copied directly from the computation form; column 18 is given to show the degree of accordance existing in the determinations from deflections with the deflecting magnet at the respective distances 22·5 and 30 cms. in case of instrument No. 7 and 23 and 30 cms. in case of instrument No. 3.

Dip Circle.—Dip Circle No. 160 is of the usual Kew pattern. The observations by this instrument have been made on the 2nd floor, the instrument being permanently placed on a separate pillar provided for that purpose. The reading of the azimuth circle of the instrument adopted for the place has been 66° 15′.

The dip needles used during the years 1904 and 1905 with the instrument have been as follow:—

For the regular observations:—

Dover No. 1.

„ No. 2.

And for supplementary observations:—

Dover No. 1 C.

„ No. 2 C.

9. Processes of Reduction and Description of the Tables of Meteorological Results, 1902 to 1905.

Pressure of Vapour and additional capacity of the Air.—Having obtained, from the tabulations of the barograms and thermograms, hourly values of barometric pressure, temperature of the air, and temperature of evaporation, the pressure of vapour was calculated for each hour with the aid of a table by the formula

$$f'' = f' - \cdot 01147\,(t - t')\times\frac{p - f'}{30}$$

in which t and t' denote the temperatures of the air and wet bulb thermometers respectively, f'' and f' the pressure of vapour at the temperature of the dew point and at temperature t', and P the barometric pressure. The values of the pressure of vapour at different temperatures were taken from the following table, the numbers in which have been extracted from Boileau's Collection of Tables:—

TABLE 1.—*Regnault's values of the Pressure of Vapour at different Temperatures.*

Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.	Temperature.	Pressure of vapour.
o	Inch.	o	Inch.	o	Inch.	o	Inch.	o	Inch.	o	Inch.	o	Inch.	o	Inch.
35	·204	43	·278	51	·374	59	·500	67	·662	75	·868	83	1·128	91	1·455
36	·212	44	·288	52	·388	60	·518	68	·685	76	·897	84	1·165	92	1·501
37	·220	45	·299	53	·403	61	·537	69	·709	77	·927	85	1·203	93	1·548
38	·229	46	·311	54	·418	62	·556	70	·733	78	·958	86	1·242	94	1·597
39	·238	47	·323	55	·433	63	·576	71	·758	79	·990	87	1·282	95	1·647
40	·248	48	·335	56	·449	64	·596	72	·784	80	1·023	88	1·324	96	1·698
41	·257	49	·348	57	·466	65	·617	73	·811	81	1·057	89	1·366	97	1·751
42	·267	50	·361	58	·482	66	·639	74	·839	82	1·092	90	1·410	98	1·805

To find the additional capacity of the air, the pressure of vapour was deducted from the number in the above table standing opposite to the temperature of the air.

Barometric Pressure.—In Table I for each year is shown, for every day in the year, the mean of 24 hourly tabulations of the barograph, corrected* to agree with Newman's barometer No. 58, also the mean pressure for each month and each year, and the excess of each monthly mean above the annual mean for the same year; and the principal features of the annual variation are indicated at the foot of the table. The maximum and minimum daily pressures in each month are distinguished by being printed in strong figures.

Temperature of the Air, &c.—The plan of the following tables is the same as that of Table I, but the subjects of them, the sources from which the numbers are obtained, and the mode of obtaining them are as stated below:—

Table II.—Temperature of the air: derived from hourly tabulations of the thermograph dry-bulb.

Table III.—Pressure of vapour: derived from hourly tabulations of the thermograph dry-bulb and wet-bulb, and of the barograph and calculated in the manner described above.

Table IV.—Additional capacity of the air: derived from hourly differences between the pressure of vapour corresponding to the temperature of the air and the calculated actual pressure of vapour.

Table VII.—Velocities of the north and east components of the wind: derived from hourly tabulations from the register of the Robinson-Beckley anemograph.

Table VIII.—Velocity of the wind regardless of direction: derived from hourly tabulations from the register of the Robinson-Beckley anemograph.

* In the manner described in paragraph 54 of the Introduction to the "Bombay Magnetical and Meteorological Observations for 1871 to 1878."

Table VIII*a*.—Velocity of the wind derived from hourly tabulations from the register of the Dines's anemometer.

Table XI.—Extent of cloudy sky derived from estimations made at the hours 6, 10, 14, 16 and 22, daily.

Tables VI and XII are on the same plan as Table I, except that the entries made in them are aggregates—daily, monthly and yearly—instead of mean values; and they are sufficiently explained by their several headings.

Monthly and Annual Range of Variation of Meteorological Elements.—Table V shows the extreme limits between which the oscillations of barometric pressure, temperature of the air, pressure of vapour, and additional capacity of the air were confined in each month and in the whole year, and also the ranges of the respective oscillations.

The numbers in Table IX are derived from hourly tabulations from the register of the Robinson-Beckley anemograph. The temperatures of the ground given in Table X are derived from the readings of the several thermometers, made five times a day as regards the 1 inch and 9 inches deep thermometers, and once a day as regards the 20 inches, 60 inches and 132 inches deep thermometers. The five-day means of Table XIII are derived from hourly tabulations of the barograph (combined with readings of Newman's barometer No. 58) and thermograph, from the measurements in Newman's rain-gauge, and from hourly tabulations from the register of the Robinson-Beckley anemograph. In other respects these tables require no explanation beyond their titles, the headings of the several columns, and the foot-notes.

10. NOTES ON INSTRUMENTAL CHANGES AND ON ALL IRREGULARITIES OR DEPARTURES FROM THE ROUTINE OF OBSERVATION OR REDUCTION IN 1902 TO 1905.

Robinson-Beckley Anemograph.—The external parts were painted on May 27 and October 21, 1902, May 20, 1903, May 14 and December 11, 1904, and May 20 and December 6, 1905. The instrument was dismounted and cleaned on 29th May 1903 and the clock was taken to pieces for cleaning on 2nd July 1903. The aggregate of all the interruptions of the instrument in the years 1902 to 1905 was $10^h\ 24^m$. The loss of record was however rarely complete, and values partly or entirely interpolated have been inserted, whenever the interruption was not prolonged. On one occasion, from 1903 May $20^d\ 0^h$ to $29^d\ 12^h$, a period during which a storm of some intensity passed over Bombay, the instrument did not work properly and the velocity figures were therefore obtained from the Dines's record by the constant factor determined for the two instruments. This interval has not been included in the above aggregate. In all other cases the interruptions were of short duration and were substituted by values obtained from Dines's record from the constant factor determined for the two instruments. No complete day's record has been omitted in the formation of monthly abstracts, with the exception of the period of nine days mentioned above when the daily means for velocity were calculated by the values derived from the Dines's record.

Dines's Anemometer.—The sensibility of the instrument is determined by a weight of 16 grains which produces a displacement of the pen, measuring about one mile on the chart. Whenever this falls to about half a mile, the instrument is opened, cleaned, and the accumulated scum removed. The instrument was so cleaned and adjusted on the 28th March, 6th September, 3rd, 20th and 21st November, and 10th, 15th and 17th December 1902, on 13th January and 23rd April 1903 and on 30th May 1905. The aggregate of all the interruptions of the instrument for the four years 1902 to 1905 was, respectively, $3^d\ 8^h\ 0^m$, $1^d\ 10^h\ 42^m$, $1^d\ 12^h\ 47^m$ and $1^d\ 14^h\ 17^m$. The interruptions were

principally due to adjustment of the instrument, to casual failure of the pen to record the fluctuations, to re-adjustment of the inclination of pen and to the stoppage or cleaning of the clock. On a few occasions, when the wind velocity was very weak and fell near to zero, the record appeared to be faulty and had to be interpolated and is not included in the above aggregate. *No complete day's record has been omitted in the formation of monthly abstracts, as there was no seriously continuous loss of record in any one day, and the short interruptions were made good by interpolation from Robinson-Beckley's record by the constant determined for the two instruments. Short interruptions caused by the regular change of paper every day for both anemometers, if not unusually prolonged, are not included in the above aggregate.

Method of Interpolation in Photographic Tabulations.—When for any reason the traces furnished by the photographic self-registering instruments are interrupted, and the interruption includes the moments when one or more hourly tabulations should be made, these last are either substituted by the corresponding eye-observations, if the hours should happen to be any of the five regular observation hours, or if special eye-observations were taken for the purpose, or else if no eye-observations are available, they are interpolated. Interpolation is resorted to rarely and only in case of accidents, otherwise, eye-observations are always made, so as to keep the record unbroken. If the interruption lasts for less time than one hour, the interpolation is made on the assumption that the rate of change of the phenomenon from its value at the beginning to its value at the end of the interruption was uniform, provided that the parts of the curve immediately preceding and immediately following the gap were, in appearance, continuations of the straight line connecting the extremities of the gap. If the last condition is not satisfied, or if the gap, taking account of points inserted by means of eye-observations, is of greater length than one hour, the interpolation is made between the next preceding and the next following hourly entries, first, by allowing for the known *normal* rate of change of the phenomenon between those hours in the same month, and then by assuming that any additional change, shown by the difference between the values of the phenomenon at the two extreme hours, has grown at a uniform rate. Interpolated values are entered in the abstract sheets with enclosing square brackets; inserted eye-observations between parentheses.

Barograph.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were adopted for the hours marked within parentheses, in 2 cases out of 4, interpolation being resorted to in the remaining 2 cases :—

(1) Stoppage of clock on 1902, March 2^d (13^h).

(2) Stoppage of clock on 1903, January 20^d (12^h).

(3) Examination of the bi-hourly stop arrangement on 1904, January 3^d (11^h and 12^h). Occasional, though rare, failure of bi-hourly stops to act has caused no loss of record.

The aggregate of all the interruptions of the barograph in the years 1902 to 1905 was $5^h\ 47^m$, and the number of hourly tabulations lost was 4, and of these 2 were substituted by eye-observations, leaving 2 more to be interpolated. Short interruptions caused by the regular change of photographic paper and by change of lamps, if not unusually prolonged, are not included in the above aggregate, nor in the aggregates of interruptions of the thermographs that follow further on.

Thermograph Dry-Bulb.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were adopted for the hours marked within parentheses, in all cases, except in 3, when interpolation had to be resorted to :—

(1) Examination into the cause of the failure of bi-hourly breaks on 1902, January 9^d (9^h) and 11^d (10^h).

*Except for the 7th May and 21st July 1902 when the curve was not available owing to derangement in the driving clock.

(2) Stoppage of clock due to faulty action of the bi-hourly fan on 1902, March 14^{d} (1^{h}); 1903, November 25^{d} (1^{h}) and 26^{d} (19^{h}).

(3) The stoppage of clock and its subsequent cleaning on 1902, August 15^{d} (21^{h}, 22^{h} and 23^{h}).

(4) Rectification of the defect in the bi-hourly stop arrangement on 1902, October 3^{d} (10^{h} and 11^{h}).

Occasional, though rare, failure of the bi-hourly stops to act has caused no loss of record.

The aggregate of all the interruptions of the thermograph dry-bulb in the years 1902 to 1905 was 15^{h} 30^{m}, and the number of hourly tabulations lost was 10, and of these 7 were substituted by eye-observations, leaving 3 to be interpolated.

Thermograph Wet-Bulb.—No tabulations were obtained for the following hours for the several reasons stated, but eye-observations were available and were adopted for the hours marked within parentheses, in all cases except in 3, when interpolation had to be resorted to:—

(1) Examination into the cause of the failure of bi-hourly breaks: same as for dry-bulb.

(2) Stoppage of clock due to faulty action of the bi-hourly fan: same as for dry-bulb.

(3) Stoppage of clock and its subsequent cleaning: same as for dry-bulb.

(4) Rectification of the defect in the bi-hourly stop arrangement: same as for dry-bulb.

(5) Loss of curve due to low temperature: on 1903, December 27^{d} (3^{h} to 9^{h}), 1905 January 23^{d} (7^{h}), January 30^{d} (2^{h} to 9^{h}), January 31^{d} (4^{h} to 12^{h}), February 1^{d} (6^{h} to 9^{h}), February 7^{d} (5^{h} to 7^{h}), February 8^{d} (7^{h} to 9^{h}).

(6) Flame suddenly went down on 1905, June 27^{d} (9^{h}).

Occasional, though rare, failure of the bi-hourly stops to act has caused no loss of record.

The aggregate of all the interruptions of the thermograph wet-bulb in the years 1902 to 1905 was 3^{d} 1^{h} 12^{m}, due to the causes mentioned above and to the short intervals of time occupied in cleaning and renewing the muslin coverings of the bulbs and the bundles of threads connecting them with the supply of water. The number of hourly tabulations lost was 46, and of these 43 were substituted by eye-observations, leaving only 3 to be interpolated.

Self-registering Rain-Gauge.—No hourly tabulations were lost in the years 1902 to 1905.

11. System of Observation at Alibag.

(a) *Daily Routine Operations.*

Observations of the instruments specified below are taken daily (Sundays included) at the five hours—6, 10, 14, 16 and 22, the day commencing at midnight and being reckoned from 0 to 24. The time* of observation of each

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* From 1st January 1907 these times have been changed to correspond to the full hour of Greenwich Mean Time and are as follows:—

At 45 minutes	after the hour,		Declination Magnetometer.
„ 50	„	„	Vertical Force Magnetograph and Thermometer.
„ 51	„	„	Declination Magnetograph.
„ 52	„	„	Horizontal Force Magnetograph and Thermometer.

element is fixed, as at Colába, and the observations are registered with strict punctuality as follows:—

At 12 minutes	after the hour,		Declination Magnetometer.
„ 16	„	„	Vertical Force Magnetograph and Thermometer.
„ 18	„	„	Declination Magnetograph.
„ 19	„	„	Horizontal Force Magnetograph and Thermometer.

The thermometer and the thermograph in the magnetograph-room are read twice a day at 6 and 16 hours.

(b) Periodic Routine Operations.

Deflection experiments, with the deflector at 100 cms. distance on the Horizontal Force Magnetograph and with the deflector at 75 cms. distance on the Vertical Force Magnetograph are made once every week. Corresponding deflection experiments at the same distances are also made weekly by the same deflector magnet upon a magnet appropriately suspended over the spot where regular absolute magnetical observations are taken.

Observations of vibration and deflection are made with the two unifilar magnetometers for the determination of the absolute horizontal force every Monday and Wednesday, and, with the same instruments, observations of absolute declination are made every Thursday. Observations of Magnetic Dip are made twice a week, every Tuesday and Friday, two complete sets of readings being obtained with each of the two needles on both days. Two supplementary needles are observed every fortnight on Saturdays, one in the first week and the other in the second week.

After the adjustment of the transit telescope in December 1904, transit observations of stars for the determination of time are made generally on Mondays, Wednesdays and Fridays in the dry months; during the monsoon no opportunity is lost of observing the sun or stars when visible. The adjustments of the transit instruments are frequently tested by reference to the fixed collimator marks; the collimation, level and azimuthal errors are determined from time to time, and whenever the collimator shows a displacement of the telescope or any considerable discordances appear in the clock errors derived from observations of stars of different north polar distances.

Before the adjustment of the transit, time was communicated to Alibag from Colába, occasionally by heliograph signals and regularly four times a week—by preconcerted arrangement of timing the flashes of the Kennery Light-house which is visible from both the observatories.

N. A. F. MOOS,
Director, Government Observatories,
Bombay and Alibag.

Bombay Observatory, August 1908.

TABLES OF RESULTS

DERIVED

FROM THE CONTINUOUS REGISTRATIONS OF AUTOMATIC METEOROLOGICAL INSTRUMENTS

AND FROM

METEOROLOGICAL OBSERVATIONS,

1902 TO 1905.

TABLES OF RESULTS

DERIVED FROM THE

METEOROLOGICAL OBSERVATIONS MADE DAILY AT 6, 10, 14, 16 AND 22 HOURS,

1902 TO 1905.

FIVE-DAY MEANS,

1902 TO 1905.

TABLES OF

PRINCIPAL SEISMIC DISTURBANCES RECORDED BY MILNE'S AND COLABA SEISMOGRAPHS,

1902 TO 1905.

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Table I.—Barometric Pressure, 1902.

Height of Barometer above mean Sea-level = 37 feet.

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	29·930	29·943	29·863	29·864	29·778	29·780	29·681	29·692	29·685	29·890	**29·780**	29·922
2	·945	·929	·837	**·877**	·784	·787	·637	·734	·659	·871	·814	·929
3	·914	·987	·819	·853	·791	·778	·626	·766	·695	·877	·897	·916
4	·861	30·037	·826	·809	·777	·754	·627	·762	·775	·906	·909	·874
5	**·859**	·026	·853	·841	·789	·718	·562	·770	·783	·936	·922	·816
6	·869	·006	·831	·855	·746	·672	·501	·776	·726	·954	·935	**·799**
7	·896	29·980	·851	·818	·747	·675	**·479**	·758	·690	·936	·964	·845
8	·920	·949	·840	·808	·754	·650	·506	·768	**·658**	·881	·974	·874
9	·930	·985	·859	·800	·782	·584	·532	·787	·682	·865	·937	·841
10	·909	·994	·861	·819	·805	·519	·559	·761	·720	·873	·925	·832
11	·907	·985	·861	·839	·834	·482	·558	·727	·743	·903	·887	·807
12	·938	·996	·877	·813	·807	**·460**	·560	·770	·728	**·957**	·867	·837
13	·941	·977	·851	·797	·790	·552	·538	**·800**	·714	·912	·879	·915
14	·909	·961	·819	·779	·827	·612	·529	·773	·755	·872	·881	·926
15	·921	·980	·850	·816	**·840**	·678	·514	·744	·790	·883	·883	·915
16	·946	30·020	·863	·782	·821	·733	·505	·730	·791	·911	·910	·877
17	·968	**·052**	·847	·763	·808	·774	·593	·738	·794	·953	·967	·904
18	·936	·030	·855	·750	·799	·776	·646	·725	·744	·944	·953	·969
19	·923	·011	·845	·781	·800	·797	·712	·659	·751	·885	·932	·966
20	·939	29·992	·821	·774	·765	·811	·735	·622	·781	·875	·958	·929
21	·937	·963	**·808**	·753	·783	·806	·734	**·609**	·779	·893	**30·007**	·898
22	·919	·956	·819	**·739**	·762	**·836**	·743	·669	·779	·886	29·991	·890
23	·897	30·014	·844	·773	·794	·797	**·759**	·722	·795	·879	·991	·902
24	·897	·007	·839	·789	·805	·738	·738	·667	·816	·870	·999	·884
25	·942	29·958	·829	·779	·758	·735	·729	·657	·823	·834	·955	·914
26	**·971**	·926	·862	·763	**·737**	·772	·669	·676	·822	·820	·914	·974
27	·956	·929	**·878**	·744	·739	·760	·629	·674	·848	·853	·941	·996
28	·897	**·901**	·831	·791	·744	·711	·630	·704	·852	·855	·954	**30·019**
29	·899		·811	·809	·753	·677	·661	·676	·851	·827	·946	·003
30	·938		·835	·799	·769	·687	·703	·676	**·835**	·783	·925	29·995
31	·952		·834		·761		·675	·699		**·777**		30·010
Monthly Mean.	29·921	**29·932**	29·843	29·799	29·782	29·704	**29·622**	29·719	29·764	29·883	29·927	29·909
Annual Variation ...	+·100	+·161	+·022	−·022	−·039	−·117	−·199	−·102	−·057	+·062	+·106	+·088

	in.
Annual mean	29·821
The greatest mean daily barometric pressure in the year (that of 17th February) was	30·052
The least do. do. do. (that of 12th June) was	29·460
Difference =	0·592

TABLE II.—Temperature of the Air, 1902.

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1	78·0	72·1	77·8	82·9	84·1	87·3	85·6	82·0	78·7	81·0	81·7	78·6
2	76·7	74·3	77·9	82·4	84·7	87·3	83·3	82·8	77·9	82·0	83·4	79·1
3	75·0	75·5	79·3	81·7	84·6	87·2	82·5	82·8	78·5	83·0	83·3	78·4
4	73·9	76·9	79·2	82·5	85·1	87·4	83·2	82·9	80·6	84·9	82·5	77·0
5	73·2	75·6	79·2	82·3	85·6	86·5	82·9	82·6	81·4	83·6	82·8	78·1
6	76·1	75·0	79·9	82·6	85·5	87·2	82·5	82·9	80·2	84·6	82·2	78·4
7	78·8	73·0	81·3	83·5	85·8	85·2	80·4	83·3	78·2	84·1	82·9	77·5
8	79·0	75·8	81·1	82·9	86·2	84·7	80·5	83·1	81·1	83·3	84·0	75·1
9	79·7	76·0	80·8	82·7	86·5	83·8	83·1	83·3	80·5	82·3	82·7	77·3
10	78·6	76·8	79·5	82·6	86·5	82·1	83·3	82·8	80·6	83·3	79·9	76·0
11	77·5	77·5	78·9	82·3	86·1	79·0	81·4	81·7	81·7	84·4	79·6	76·5
12	76·4	77·2	78·1	82·6	86·0	78·4	80·0	82·0	82·2	82·1	79·5	78·9
13	76·3	77·4	78·4	83·1	87·7	80·5	79·3	82·2	82·1	79·4	79·2	78·6
14	77·0	77·0	80·1	83·3	86·1	82·0	81·8	82·3	80·2	80·7	79·0	77·8
15	76·9	77·1	80·5	83·3	85·8	83·3	81·7	83·0	78·8	82·1	80·1	77·4
16	74·8	77·7	81·9	83·5	85·5	84·3	81·8	83·0	78·7	82·1	80·5	77·6
17	74·2	78·0	81·7	83·7	85·5	84·7	82·1	82·2	77·9	83·0	79·5	79·2
18	73·4	76·8	81·0	83·5	85·6	84·4	82·3	82·5	77·2	84·3	79·6	79·1
19	75·0	76·6	80·0	84·3	85·3	84·8	82·1	82·7	79·1	83·1	79·8	78·4
20	74·2	75·5	80·7	84·4	85·4	83·8	80·8	80·2	81·0	82·2	81·4	76·4
21	74·3	75·9	80·3	84·1	85·6	84·7	80·9	77·7	81·6	81·9	82·0	74·0
22	74·7	76·5	80·7	84·1	85·3	84·6	81·9	79·7	81·3	82·9	82·6	73·1
23	74·9	77·2	80·3	83·4	86·2	84·4	82·5	81·5	81·2	85·3	80·9	74·8
24	75·0	77·3	80·6	83·1	86·5	84·2	81·9	79·8	80·6	84·7	79·0	76·3
25	76·4	76·7	84·5	83·9	86·5	84·8	81·7	81·5	80·6	84·3	77·9	75·4
26	76·7	76·3	83·8	84·1	86·8	85·1	81·6	81·5	79·7	83·4	78·0	74·7
27	77·4	76·7	83·5	83·7	86·8	84·8	82·2	80·2	80·3	82·6	78·3	75·1
28	75·9	76·0	84·0	85·0	86·5	84·7	82·5	79·8	80·6	83·7	78·6	74·6
29	75·3		83·7	84·3	86·6	85·3	82·6	79·1	80·7	84·5	78·5	74·4
30	73·3		83·5	84·1	86·4	85·8	82·9	79·0	80·7	82·7	78·4	73·4
31	72·6		82·9		86·7		79·7	79·8		80·9		73·0
Monthly Mean.	75·8	76·2	80·8	83·3	85·9	84·4	82·0	81·6	80·1	83·0	80·6	76·6
Annual Variation ...	−5·1	−4·7	−0·1	+2·4	+5·0	+3·5	+1·1	+0·7	−0·8	+2·1	−0·3	−4·3

	°
Annual mean	80·9
The greatest mean daily temperature of the air in the year (that of 13th May) was	87·7
The least do. do. do. (that of 1st February) was	72·1
Difference =	15·6

Table III.—Pressure of Vapour, 1902.

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	0·685	0·537	0·722	**0·789**	0·882	0·956	0·928	0·921	0·899	0·877	0·880	0·635
2	·667	·451	·782	·824	·893	·975	·942	**·931**	·885	·886	·915	·617
3	·513	·562	·759	·833	·909	·978	·934	·907	·898	·939	**·969**	·611
4	·499	·594	·798	·826	·938	**·979**	·956	·886	·932	·947	·884	·653
5	·524	·536	·811	·827	·941	·965	**·977**	·879	**·935**	·959	·839	·721
6	·627	·575	·810	·840	·932	·963	·961	·869	·921	·971	·889	·759
7	**·758**	**·435**	·787	·839	·917	·966	·929	·869	·910	·898	·849	·744
8	·734	·568	·811	·892	·933	·943	·939	·888	·929	·914	·850	·731
9	·700	·684	·723	·866	·897	·898	·947	·880	·928	·882	·598	·762
10	·741	·693	·717	·882	·911	·906	·960	·878	·927	·923	·606	·805
11	·721	·700	**·680**	·863	·902	·911	·936	**·862**	·927	·899	·615	·780
12	·699	·714	·737	·883	·892	·896	·927	·870	·923	·900	·634	**·857**
13	·706	·747	·764	·902	**·955**	·905	·911	·906	·925	·870	·610	·832
14	·689	·730	·750	·918	·918	·945	·933	·889	·919	·841	·675	·813
15	·634	·665	·797	·909	·861	·958	·935	·882	·907	·907	·642	·791
16	·586	·617	·740	·933	·853	·954	·929	·885	·896	·922	·661	·784
17	**·479**	·639	·809	·892	**·841**	·952	·927	·900	·862	**·984**	·665	·841
18	·492	·643	·784	·898	·882	·928	·930	·891	·881	·963	·728	·811
19	·617	·692	·832	·907	·918	·934	·922	·885	·912	·948	·722	·710
20	·593	·661	·764	**·943**	·933	·923	·909	·915	·932	·906	·843	·558
21	·607	·649	·792	·859	·896	·925	·923	·862	·935	·911	·846	**·461**
22	·670	·677	·830	·875	·889	·892	·924	·885	·902	·893	·784	·554
23	·705	**·777**	·837	·835	·922	**·875**	·941	·909	·854	·940	·618	·653
24	·710	·708	·868	·816	·955	·891	·929	·898	·851	·911	**·558**	·602
25	·670	·774	·850	·920	·939	·926	·911	·921	·847	·903	·568	·586
26	·694	·722	**·958**	·902	·944	·936	·918	·920	**·814**	·859	·612	·558
27	·689	·684	·906	·887	·940	·941	·932	·892	·833	·811	·611	·534
28	·671	·706	·880	·901	·927	·924	·945	·897	·824	·829	·616	·569
29	·618		·902	·875	·916	·920	·936	·902	·835	**·729**	·637	·558
30	·615		·913	·878	·918	·917	·931	·913	·840	·757	·642	·537
31	·611		·858		·940		**·894**	·924		·825		·577
Monthly Mean...	**0·643**	0·648	0·806	0·874	0·913	**0·933**	0·933	0·894	0·893	0·894	0·719	0·677
Annual Variation ...	−·176	−·171	−·013	+·055	+·094	+·114	+·114	+·075	+·074	+·075	−·100	−·142

	in.
Annual mean	0·819
The greatest mean daily pressure of vapour in the year (that of 17th October) was ...	0·984
The least do. do. do. (that of 7th February) was	0·435
Difference =	0·549

TABLE IV.—Additional Capacity of the Air, 1902.

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	0·278	0·257	0·235	**0·341**	0·289	**0·341**	**0·303**	0·171	0·083	0·185	0·206	0·353
2	·257	**·405**	**·178**	·289	·304	·322	·200	·190	·072	·210	·231	**·383**
3	·360	·333	·246	·254	·284	·317	·177	·217	·079	·193	**·170**	·364
4	·342	·326	·202	·286	**·271**	·324	·184	·240	·113	·259	·231	·282
5	·301	·357	·190	·282	·289	·301	·151	·237	·137	·194	·286	·245
6	·280	·293	·214	·278	·296	·331	·155	·260	·111	·220	·215	·215
7	·234	·384	·284	·315	·321	·249	·110	**·271**	·055	·273	·284	·199
8	·261	·337	·252	·237	·322	·252	·103	·246	·134	·229	·320	·140
9	·320	·219	·331	·256	·370	·263	·185	·263	·115	·221	**·525**	·178
10	·242	·233	·295	·234	·355	·192	·182	·245	·119	·219	·423	**·092**
11	·224	·248	·310	·245	·348	·078	·135	·221	·156	·287	·402	·135
12	·215	·224	·227	·236	·355	**·076**	·099	·223	·179	·200	·380	·131
13	·206	·197	·210	·234	·362	·140	**·090**	·195	·172	**·139**	·396	·147
14	·242	·201	·284	·224	·332	·151	·153	·218	·113	·209	·323	·140
15	·294	·274	·247	·232	·375	·184	·146	·248	·078	·190	·395	·149
16	·280	·340	**·354**	**·217**	·372	·226	·158	·246	·085	·177	·384	·164
17	**·372**	·323	·279	·267	**·386**	·242	·170	·202	·096	·148	·351	·159
18	·340	·280	·278	·254	·347	·256	·173	·219	**·052**	·217	·291	·185
19	·258	·226	·195	·273	·298	·264	·177	·234	·082	·184	·300	·264
20	·260	·223	·288	·239	·288	·235	·145	·115	·126	·195	·233	·355
21	·246	·251	·247	·308	·334	·267	·133	·088	·144	·180	·251	·382
22	·193	·239	·219	·297	·331	·298	·166	·128	·167	·238	·336	·266
23	·165	·161	·201	·312	·330	·308	·169	·173	·211	·279	·440	·229
24	**·164**	·235	·181	·319	·312	·282	·159	·120	·196	·283	·439	·312
25	·249	**·147**	·342	·247	·325	·271	·171	·154	·199	·277	·395	·297
26	·230	·188	·204	·272	·335	·273	·160	·154	·202	·289	·356	·307
27	·259	·240	·244	·271	·337	·257	·168	·137	·203	·308	·363	·341
28	·229	·197	·291	·304	·340	·268	·166	·122	**·222**	·334	·367	·293
29	·260		·257	·305	·352	·298	·180	·093	·215	**·460**	·350	·298
30	·207		·237	·294	·344	·317	·196	**·076**	·209	·363	·337	·293
31	·192		·264		·332		·122	·094		·232		·240
Monthly Mean.	0·257	0·262	0·251	0·271	0·330	0·253	0·161	0·187	**0·138**	0·239	**0·333**	0·243
Annual Variation ...	+·013	+·018	+·007	+·027	+·086	+·009	−·083	−·057	−·106	−·005	+·089	−·001

	in.
Annual mean	0·244
The greatest mean daily additional capacity of the air in the year (that of 9th November) was ...	0·525
The least do. do. do. (that of 18th September) was ...	0·052
Difference =	0·473

Maxima and Minima of different Meteorological Elements, 1902.

TABLE V.—*In which are collected the individual observations in each month of the year, which showed the greatest and the least values of the following elements, viz., Height of Barometer, corrected for Temperature; Temperature of Air; Pressure of Vapour; and Additional Capacity of Air.*

1902.	HEIGHT OF BAROMETER.			TEMPERATURE OF AIR.			PRESSURE OF VAPOUR.			ADDITIONAL CAPACITY.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in.	in.	in.	°	°	°	in.	in.	in.	in.	in.	in.
January ...	30·157	29·811	0·346	87·6	66·5	21·1	0·849	0·322	0·527	0·702	0·033	0·669
February .	·122	·827	·295	88·5	65·3	23·2	·823	·291	·532	·975	·043	·932
March ...	29·961	·747	·214	89·2	71·9	17·3	1·007	·494	·513	·626	·061	·565
April ...	·933	·685	·248	89·5	77·5	12·0	·007	·657	·350	·548	·107	·441
May ...	·898	·686	·212	92·5	80·7	11·8	0·999	·757	·242	·576	·161	·415
June ...	·887	·402	·485	92·1	76·2	15·9	1·036	·797	·239	·559	·042	·517
July ...	·805	·433	·372	88·9	76·8	12·1	·031	·789	·242	·432	·021	·411
August ...	·853	·552	·301	86·8	74·8	12·0	0·981	·790	·191	·378	·025	·353
September.	·940	·614	·326	85·2	74·8	10·4	1·008	·744	·264	·366	·020	·346
October ...	30·017	·703	·314	91·8	75·4	16·4	·049	·627	·422	·776	·059	·717
November.	·080	·735	·345	90·3	73·0	17·3	·015	·440	·575	·872	·097	·775
December .	·088	·734	·354	86·6	68·0	18·6	0·924	·346	·578	·734	·059	·675
Year ...	30·157	29·402	0·755	92·5	65·3	27·2	1·049	0·291	0·758	0·975	0·020	0·955

Rainfall, 1902.

TABLE VI.—*Total fall of rain (in inches) as measured by F. Chambers's Self-registering Gauge, the funnel of which is 28 feet above the ground.*

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
						in.	in.	in.	in.	in.		in.
1	...	...	...	...	...	...	...	0·01	2·87	...	...	...
2	...	...	...	...	...	...	0·38	...	2·42	...	...	...
3	...	...	...	...	...	...	0·01	...	0·90	...	...	...
4	...	...	...	...	...	...	0·04	...	0·09	0·01	...	...
5	...	...	...	...	...	0·01	0·48	...	0·06	0·01	...	...
6	...	...	...	...	...	...	2·44	...	0·28	...	...	...
7	...	...	...	...	...	0·40	0·73	...	2·55	...	...	0·02
8	...	...	...	...	...	0·23	1·76	...	0·29	...	...	0·29
9	...	...	...	...	...	...	0·06	...	0·17	...	...	...
10	...	...	...	...	...	0·86	0·30	0·05	0·11	...	...	0·09
11	...	...	...	...	...	2·51	0·23	0·10	0·03	...	...	**0·32**
12	...	...	...	...	...	**2·81**	1·73	0·20	...	**0·35**	...	...
13	...	...	...	...	...	0·98	**2·82**	0·05	0·01	0·11	...	...
14	...	...	...	...	...	0·60	0·34	0·04	1·20	...	...	...
15	...	...	...	...	...	0·18	0·15	...	1·42	...	...	...
16	...	...	...	...	...	...	0·22	...	1·85	...	...	...
17	...	...	...	...	...	...	0·10	0·21	**6·18**	...	...	...
18	...	...	...	...	...	...	0·44	0·08	3·76	...	...	...
19	...	...	...	...	...	...	0·12	0·03	1·39	...	...	...
20	...	...	...	...	...	...	0·55	1·82	0·27	...	...	...
21	...	...	...	...	...	...	0·37	1·38	0·24	...	...	...
22	...	...	...	...	...	0·04	0·01	0·42	...	...	...	...
23	...	...	...	...	...	...	0·07	0·05	...	...	...	...
24	...	...	...	...	...	0·01	0·20	0·95	...	...	...	...
25	...	...	...	...	...	...	0·03	0·35	...	...	...	...
26	...	...	...	...	...	...	0·22	0·09	...	0·19	...	...
27	...	...	...	...	...	...	0·02	1·08	...	...	...	...
28	...	...	...	...	...	0 01	0·04	0·47	0·03	...	...	...
29	...		...	...	...	...	0·03	3·13	...	...	...	...
30	...		...	...	...	...	0·01	**4·52**	...	...	...	...
31	...		...		...		2·52	1·00		...		...
Monthly Total.	...	...	...	...	...	8·64	16·42	16·03	**26·12**	0·67	...	0·72
Number of rainy days.	...	...	...	...	...	12	30	21	21	5	...	4

Total fall of rain in the year ... ... 68·60 inches.
Total number of rainy days in the year 93
The greatest daily fall of rain in the year (that of 17th September) was ... ... 6·18 inches.
No rain fell in the months of January, February, March, April, May and November, nor on any of the days left blank in the above table.

Mean Daily Velocities of the North and East Components of the Wind, 1902.

TABLE VII.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each day of the year 1902.*

In Miles per Hour.

1902.	MONTH.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ...	6·3 N	2·3 W	9·5 N	1·7 W	5·2 N	5·0 W	2·0 N	4·9 W	3·0 N	6·2 W	3·2 S	5·0 W	4·0 S	5·2 W	1·5 S	19·3 W	2·1 N	15·5 W	6·7 N	1·9 W	0·6 N	1·7 W	7·0 N	6·8 E
2 ...	6·5 N	0·6 W	11·4 N	2·0 W	0·0	4·3 W	3·7 N	4·0 W	0·2 S	5·5 W	1·0 N	5·2 W	3·4 S	3·9 W	2·4 S	12·9 W	0·2 S	19·5 W	6·9 N	2·9 W	1·2 N	1·5 W	6·7 N	6·2 E
3 ...	9·1 N	1·4 W	6·9 N	0·6 W	6·6 N	3·9 W	2·8 N	3·6 W	1·9 N	6·2 W	3·7 N	7·3 W	9·4 S	0·4 W	0·3 S	8·2 W	2·8 S	13·8 W	8·5 N	2·7 W	1·0 N	1·0 E	3·8 N	5·3 E
4 ...	8·3 N	0·4 W	6·8 N	1·3 W	2·6 N	5·7 W	0·5 S	4·8 W	1·3 N	5·7 W	2·7 N	7·4 W	3·8 S	0·8 W	0·3 N	7·7 W	8·0 S	3·5 W	1·4 N	0·9 E	3·2 N	4·8 E	4·8 N	2·5 E
5 ...	6·4 N	1·1 W	8·1 N	3·8 W	0·6 S	3·9 W	5·6 N	6·6 W	1·5 S	6·7 W	4·0 S	4·5 W	0·9 S	1·2 W	0·6 S	9·4 W	4·7 S	6·7 W	1·3 S	0·5 E	0·6 S	1·3 E	3·9 N	2·6 E
6 ...	5·0 N	2·2 E	9·5 N	3·8 W	6·1 N	5·6 W	7·3 N	9·2 W	1·9 S	5·5 W	3·5 S	5·4 W	1·8 S	3·6 E	0·0	9·2 W	1·7 S	11·5 W	5·6 N	0·2 W	2·0 N	0·2 E	1·1 S	4·9 E
7 ...	1·8 N	2·6 E	6·9 N	2·5 W	1·8 N	2·1 W	6·9 N	8·7 W	1·2 S	6·3 W	10·0 S	1·4 W	8·6 S	7·0 W	0·5 N	9·9 W	0·9 S	6·7 W	6·7 N	1·6 W	1·3 N	6·0 E	2·6 S	8·9 E
8 ...	5·8 N	0·1 W	5·1 N	1·5 E	4·5 N	3·9 W	4·4 N	7·8 W	4·4 S	5·7 W	11·7 S	0·1 E	7·8 S	14·8 W	0·8 S	10·1 W	2·2 S	14·4 W	7·0 N	3·8 W	4·1 N	4·0 E	5·8 N	11·1 E
9 ...	6·0 N	2·3 E	0·4 N	1·5 W	9·2 N	6·0 W	5·2 S	6·2 W	2·2 S	7·8 W	18·5 S	4·8 E	6·8 S	15·4 W	0·6 S	10·2 W	0·8 S	12·1 W	0·7 N	2·1 W	2·7 N	11·2 E	4·6 N	2·9 E
10 ...	4·4 N	0·5 E	3·2 N	1·9 W	5·7 N	6·1 W	4·1 N	6·1 W	1·1 S	7·9 W	26·3 S	8·3 E	4·6 S	8·2 W	4·5 S	10·9 W	3·1 S	1·0 W	2·3 N	0·4 W	4·1 N	4·0 E	1·4 S	4·9 E
11 ...	5·8 N	2·8 W	3·7 N	2·6 W	4·5 N	5·6 W	3·5 N	6·1 W	0·9 N	7·4 W	23·8 S	10·8 E	6·9 S	5·8 W	6·3 S	11·5 W	2·5 S	4·1 W	1·3 S	0·7 E	4·1 N	1·6 E	6·4 S	12·4 E
12 ...	4·5 N	4·1 W	2·8 N	3·8 W	1·8 N	3·4 W	2·1 N	6·0 W	1·6 N	7·1 W	24·7 S	5·7 E	8·7 S	5·5 W	5·0 S	10·3 W	1·7 N	8·7 W	1·2 S	0·8 W	3·8 N	4·1 E	22·4 S	4·2 E
13 ...	3·6 N	1·6 W	0·4 S	2·2 W	4·9 N	3·4 W	0·7 N	6·2 W	5·5 S	5·2 W	23·5 S	1·9 E	1·9 S	17·5 W	1·7 S	8·6 W	2·8 N	4·9 W	3·8 N	5·0 E	3·9 N	4·0 E	0·9 S	1·1 W
14 ...	7·5 N	0·7 W	3·5 N	3·1 W	9·3 N	2·5 W	5·0 N	8·1 W	1·3 N	8·5 W	14·8 S	4·2 W	0·3 S	20·3 W	0·3 S	6·6 W	3·0 N	1·7 W	0·4 S	5·4 E	5·7 N	3·8 E	7·1 N	2·9 W
15 ...	8·9 N	2·9 W	5·1 N	1·9 W	3·9 N	4·3 W	5·8 N	6·6 W	0·8 N	7·2 W	9·1 S	7·3 W	1·9 S	22·2 W	1·7 N	7·3 W	1·9 N	1·0 W	1·0 S	0·0	5·5 N	5·8 E	9·5 N	3·8 W
16 ...	11·2 N	3·1 W	5·0 N	3·0 W	6·6 N	2·8 W	4·5 N	6·1 W	3·5 N	9·2 W	5·1 S	8·5 W	0·4 S	28·8 W	1·6 N	5·5 W	2·1 N	3·9 W	4·8 N	3·5 W	5·8 N	5·8 E	6·8 N	2·4 W
17 ...	12·5 N	3·7 W	7·3 N	2·1 W	4·8 N	5·0 W	2·8 N	5·7 W	2·9 N	8·2 W	4·0 S	10·4 W	4·0 S	22·4 W	1·3 N	4·3 W	0·9 N	5·9 W	6·6 N	2·6 W	4·3 N	5·4 E	2·3 N	0·6 W
18 ...	7·5 N	1·4 W	6·2 N	2·4 W	0·6 S	6·2 W	4·2 N	6·6 W	5·9 N	10·0 W	2·9 S	11·3 W	5·2 S	18·3 W	0·3 S	7·3 W	3·8 S	3·4 W	6·6 N	2·7 W	6·1 N	3·5 E	2·3 N	1·6 W
19 ...	1·8 N	0·9 W	8·5 N	6·0 W	1·9 N	5·0 W	4·2 N	8·2 W	6·4 N	9·9 W	3·4 S	11·4 W	7·3 S	9·9 W	0·2 S	6·9 W	0·5 S	8·5 W	6·6 N	4·0 W	2·8 N	0·5 W	6·3 N	1·4 W
20 ...	7·8 N	2·9 W	11·8 N	5·6 W	5·8 N	4·0 W	5·1 N	9·2 W	4·8 N	7·7 W	2·7 S	15·0 W	6·6 S	7·7 W	5·0 S	2·6 W	1·8 S	11·9 W	5·6 N	2·1 W	5·2 N	0·3 W	10·5 N	3·1 W
21 ...	10·2 N	2·7 W	10·8 N	5·2 W	2·4 N	5·3 W	3·3 N	7·2 W	0·4 N	7·4 W	4·1 S	12·5 W	3·6 S	13·7 W	1·5 N	9·2 W	1·7 N	10·3 W	6·1 N	1·0 W	5·7 N	1·8 E	12·1 N	3·2 W
22 ...	8·2 N	3·5 W	4·7 N	3·3 W	2·0 N	6·4 W	0·5 N	6·8 W	0·9 N	6·6 W	0·9 S	15·7 W	4·4 S	18·0 W	1·7 S	11·5 W	0·2 N	4·8 W	5·6 N	1·1 W	5·7 N	5·0 E	2·0 N	0·2 E
23 ...	7·1 N	2·9 W	1·9 N	4·0 W	4·7 N	5·9 W	1·9 N	5·6 W	2·0 N	7·7 W	1·1 S	13·9 W	5·9 S	15·0 W	5·4 S	4·7 W	4·5 N	4·6 W	3·7 N	0·5 E	5·9 N	7·1 E	2·0 N	1·9 E
24 ...	7·9 N	2·5 W	4·8 N	3·7 W	4·8 N	5·6 W	0·4 N	5·5 W	4·0 N	9·5 W	1·6 S	13·6 W	5·6 S	16·5 W	1·3 S	6·8 W	5·3 N	1·6 W	1·4 N	0·6 E	5·3 N	6·7 E	5·8 N	5·8 E
25 ...	3·9 N	0·7 W	4·0 N	5·5 W	6·7 N	3·9 W	2·3 N	6·4 W	5·9 N	8·8 W	2·7 S	11·5 W	7·1 S	12·2 W	0·6 S	17·3 W	5·4 N	2·9 W	0·8 N	1·5 E	4·4 N	2·6 E	6·9 N	1·9 E
26 ...	0·1 S	0·1 E	3·7 N	3·0 W	6·1 S	3·6 W	4·1 N	5·9 W	3·4 N	8·9 W	0·3 S	9·0 W	9·9 S	12·0 W	0·0	19·0 W	2·8 N	1·3 W	0·6 S	3·0 E	6·7 N	4·6 E	8·2 N	2·3 E
27 ...	3·1 N	1·8 E	8·6 N	4·3 W	2·2 S	4·8 W	1·7 N	6·1 W	3·6 N	9·6 W	1·8 N	8·4 W	7·9 S	12·0 W	0·6 S	19·6 W	0·9 S	0·7 E	4·2 N	4·2 E	6·3 N	3·9 E	7·8 N	5·3 E
28 ...	5·5 N	0·8 W	8·6 N	4·8 W	3·7 N	3·0 W	3·5 S	6·7 W	1·4 N	8·2 W	1·7 N	7·3 W	4·3 S	14·7 W	5·1 S	17·1 W	1·2 N	3·4 W	6·8 N	0·7 E	7·4 N	5·9 E	3·7 N	3·8 E
29 ...	7·6 N	2·9 W			1·4 S	3·7 W	0·5 S	6·5 W	0·8 N	7·5 W	0·1 N	6·8 W	0·3 N	13·7 W	0·2 S	16·8 W	2·2 S	0·8 E	6·4 S	7·4 E	6·1 N	4·8 E	2·4 N	3·4 E
30 ...	5·9 N	1·4 W			3·9 S	3·5 W	2·6 N	7·8 W	3·5 N	7·9 W	2·6 S	5·9 W	0·8 S	16·2 W	1·6 N	15·5 W	2·8 S	1·6 E	3·9 N	5·4 E	6·3 N	4·1 E	4·0 N	2·6 E
31 ...	8·4 N	1·0 W			0·6 N	4·9 W			1·0 N	6·6 W			0·4 S	19·0 W	1·4 N	12·8 W			2·8 N	0·9 W			0·2 N	2·8 E
Monthly Mean ...	6·4 N	1·3 W	6·0 N	3·0 W	3·1 N	4·5 W	3·1 N	6·5 W	1·4 N	7·5 W	6·4 S	5·9 W	4·7 S	12·1 W	1·1 S	10·6 W	0·1 S	6·2 W	3·6 N	0·0	4·2 N	3·6 E	3·3 N	2·7 E
Annual Variation ...	4·8 N	3·0 E	4·4 N	1·3 E	1·5 N	0·2 W	1·5 N	2·2 W	0·2 S	3·2 W	8·0 S	1·6 W	6·3 S	7·8 W	2·7 S	6·3 W	1·7 S	1·9 W	2·0 N	4·3 E	2·6 N	7·9 E	1·7 N	7·0 E

The Velocities of the Mean Components for the year are 1·6 N. and 4·3 W.

Velocity of Wind, 1902.

ROBINSON BECKLEY'S ANEMOGRAPH.

TABLE VIII.—*Mean Velocity of the Wind, in miles per hour, without regard to the direction from which it blew, for each Day of Bombay Civil Time; also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles	Miles.
1	7·7	11·0	9·2	8·3	9·2	7·5	**6·7**	19·6	15·9	8·3	6·0	11·7
2	8·2	12·3	6·8	8·0	8·1	8·5	7·7	13·4	**19·8**	8·8	**4·8**	12·2
3	10·0	9·8	10·6	7·4	7·5	8·6	11·2	8·3	14·6	6·9	5·3	11·0
4	10·2	9·2	7·6	8·7	6·9	8·3	8·3	7·8	9·0	5·6	10·1	8·9
5	8·0	10·5	6·4	9·9	8·0	7·2	10·5	9·7	8·3	**4·8**	6·0	7·5
6	9·5	11·2	8·7	**13·0**	7·3	7·5	8·9	9·2	12·1	7·4	6·6	6·8
7	8·5	8·8	7·3	12·0	**6·7**	11·4	16·9	10·0	10·0	8·5	9·1	10·3
8	8·1	9·7	9·3	9·2	7·3	13·5	17·7	10·4	14·9	8·7	9·8	13·1
9	9·9	6·2	11·7	9·3	8·4	20·3	17·5	10·3	12·5	7·0	12·4	8·1
10	6·3	7·1	9·2	8·5	8·2	**28·3**	9·5	11·9	5·4	6·1	8·8	8·2
11	7·8	7·1	9·0	7·4	7·6	27·5	12·2	13·3	6·1	7·4	8·5	14·7
12	7·1	6·4	8·0	7·4	7·6	26·3	13·5	12·0	9·3	7·0	8·9	**23·4**
13	7·6	5·4	9·4	7·1	8·0	24·9	17·9	9·0	6·5	11·2	9·6	6·5
14	10·4	6·6	11·1	9·8	9·0	15·8	20·8	6·6	**4·5**	8·7	10·1	8·6
15	10·7	7·2	8·2	10·4	7·4	11·8	22·6	7·7	4·7	6·3	10·0	10·8
16	12·2	8·3	10·0	10·7	9·9	10·0	**28·9**	**6·3**	8·1	6·0	11·0	8·0
17	**13·8**	9·8	9·1	8·0	8·9	11·6	23·2	6·3	8·5	7·8	10·1	**4·0**
18	9·2	7·6	6·6	8·2	11·9	12·0	19·3	7·5	9·8	8·1	10·1	5·7
19	7·3	11·1	6·6	10·0	**12·9**	12·1	12·6	7·1	9·2	9·3	5·1	8·3
20	9·6	**13·5**	8·5	10·9	11·0	15·6	10·8	9·7	12·4	8·5	6·9	11·5
21	11·1	12·7	**6·0**	8·8	7·6	13·3	15·3	11·5	10·7	8·9	9·3	13·3
22	10·2	6·4	8·0	7·6	6·7	15·9	18·9	12·0	7·1	7·5	11·6	6·4
23	9·2	**4·7**	9·7	6·2	8·5	14·2	16·2	7·8	8·4	7·0	12·8	7·9
24	9·9	8·2	8·3	**5·7**	10·4	13·9	17.6	9·2	8·7	6·1	12·0	12·4
25	**5·6**	7·0	**11·8**	6·9	10·8	12.0	14·4	17·4	7·9	6·3	10·3	10·7
26	6·1	7·0	9·0	7·9	10·0	9·1	15·8	19·0	5·5	8·1	11·7	11·1
27	6·5	11·7	7·7	8·5	10·4	8·8	14·7	**19·7**	6·2	10·7	10·5	13·0
28	8·3	11·3	6·8	8·0	8·6	7·7	15·6	18·1	4·7	9·7	**12·9**	9·0
29	8·9		9·2	6·8	7·7	**6·8**	13·9	17·4	6·1	**12·3**	10·9	8·8
30	7·4		7·6	8·4	8·8	6·8	16·4	15·9	8·0	11·7	10·8	8·4
31	11·2		9·0		7·2		19·6	13·2		5·8		6·6
Monthly Mean	8·9	8·8	8·6	8·6	8·7	13·2	**15·3**	11·5	9·2	**8·0**	9·4	9·9
Annual Variation	−1·1	−1·2	−1·4	−1·4	−1·3	+3·2	+5·3	+1·5	−0·8	−2·0	−0·6	−0·1

	Miles.
The mean velocity for June to August	13·3
Do. for September to May	8·9
Do. for the year	10·0
The greatest monthly mean (that of July)	15·3
The least do. (that of October)...	8·0
Difference =	7·3
The greatest mean daily velocity of wind in the year (that of 16th July) was ...	28·9
The least do. do. do. (that of 17th December) was ...	4·0
Difference =	24·9

Velocity of Wind, 1902.

Dines' Anemograph.

Table VIIIa.—*Mean Velocity of the Wind, in miles per hour, for each Day of Bombay Civil Time; also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	5·2	7·4	6·2	5·9	6·5	5·5	**4·9**	**13·1**	10·7	6·0	4·2	8·8
2	5·7	8·5	4·9	5·5	5·8	6·2	5·5	8·6	**13·4**	6·6	**3·2**	9·1
3	6·9	6·7	7·4	5·2	5·4	6·3	8·1	5·3	9·9	5·0	4·0	8·5
4	7·2	6·4	5·0	6·5	4·7	5·9	6·2	5·0	6·6	3·9	7·4	6·2
5	5·5	7·3	4·7	7·4	5·5	5·0	7·3	6·3	5·7	**3·2**	5·0	5·7
6	6·4	7·8	6·0	**9·3**	4·9	5·2	6·3	6·1	8·2	5·4	5·2	5·6
7	5·6	6·2	4·8	8·5	...	8·2	12·5	6·8	7·1	6·4	6·9	8·3
8	5·6	6·4	6·5	6·5	5·4	9·7	12·4	7·1	10·3	6·5	7·3	9·5
9	6·8	4·1	8·1	6·7	5·6	15·5	12·2	6·9	8·7	5·4	9·0	6·0
10	4·3	4·8	6·5	6·1	5·4	**19·8**	6·5	8·0	4·0	4·8	6·5	7·0
11	5·5	4·6	5·9	5·2	5·2	19·5	8·7	9·2	4·5	5·7	6·3	11·3
12	4·8	4·3	5·7	5·1	5·3	18·6	9·3	8·1	6·6	5·3	6·4	**17·1**
13	5·0	3·7	6·4	5·0	5·7	18·0	12·0	5·9	4·5	8·0	6·7	5·1
14	7·2	4·4	7·9	6·7	6·1	11·5	14·0	4·3	3·2	6·1	7·4	6·6
15	7·4	4·9	5·7	7·2	4·9	8·3	15·1	5·3	3·5	4·3	7·1	8·3
16	8·3	5·7	6·8	7·7	7·0	6·5	**19·0**	4·3	5·7	4·1	7·7	6·3
17	**9·5**	6·7	6·5	5·4	6·0	7·5	15·2	**4·2**	5·8	5·4	7·4	**3·0**
18	6·3	5·4	4·4	5·9	8·4	7·7	12·8	4·9	7·0	5·8	7·4	4·5
19	4·9	7·5	4·5	7·2	**9·0**	7·7	8·9	4·5	6·3	6·8	4·2	6·3
20	6·5	**9·5**	5·9	7·6	8·0	10·3	7·5	6·7	8·2	6·1	5·5	8·5
21	7·7	8·7	**4·0**	6·0	5·3	8·7	...	7·7	7·3	6·4	7·5	9·6
22	7·0	4·1	5·5	5·1	**4·5**	10·6	12·9	8·1	5·1	5·4	9·3	4·5
23	6·3	**3·1**	6·7	4·2	6·1	9·2	10·9	5·6	6·0	5·0	**9·6**	6·1
24	6·7	5·7	5·6	**3·7**	7·7	9·2	12·0	6·2	6·1	4·4	9·3	8·7
25	**3·5**	4·7	**8·3**	4·7	7·9	8·0	10·2	11·6	5·5	4·7	8·5	7·5
26	3·9	4·8	6·5	5·2	7·2	6·1	11·2	12·8	3·9	5·6	9·0	7·8
27	4·2	8·2	5·3	5·8	7·2	5·9	10·3	13·1	4·7	7·5	8·0	9·0
28	5·6	7·9	4·7	5·5	5·9	5·3	10·5	11·9	**3·1**	6·9	9·4	6·2
29	5·9		6·5	4·7	5·2	**4·5**	9·3	11·8	4·5	**8·8**	8·3	6·3
30	5·0		5·2	5·8	6·3	4·6	10·9	10·7	6·2	8·5	8·2	5·8
31	7·7		6·5		5·0		13·0	9·0		4·1		5·0
Monthly Mean	6·1	6·1	6·0	6·0	5·9	9·2	**10·2**	7·7	6·4	**5·7**	7·1	7·4
Annual Variation	−0·9	−0·9	−1·0	−1·0	−1·1	+2·2	+3·2	+0·7	−0·6	−1·3	+0·1	+0·4

	Miles.
The mean velocity for June to August	... 9·0
Do. for September to May	... 6·3
Do. for the year	... 7·0
The greatest monthly mean (that of July)	... 10·2
The least do. (that of October)	... 5·7
Difference =	... 4·5
The greatest mean daily velocity of wind in the year (that of 10th June) was ...	... 19·8
The least do. do. do. (that of 17th December) was	... 3·0
Difference =	... 16·8

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1902.

TABLE IX.—*Showing, for the year 1902, the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions: and also the number of hourly Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1902.	N.			N.N.E.			N.E.			E.N.E.			E.			E.S.E.			S.E.			S.S.E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ...	964	125	7·7	486	79	6·2	420	60	7·0	616	79	7·8	197	26	7·6	91	13	7·0	15	3	5·0	0	0	0·0
February ...	666	86	7·7	352	58	6·1	207	32	6·5	358	45	8·0	74	12	6·2	62	14	4·4	6	1	6·0	10	2	5·0
March ...	200	29	6·9	134	27	5·0	69	13	5·3	195	27	7·2	78	12	6·5	58	10	5·8	85	15	5·7	198	35	5·7
April ...	204	39	5·2	151	27	5·6	39	7	5·6	43	9	4·8	38	5	7·6	11	2	5·5	73	12	6·1	20	4	5·0
May ...	6	1	6·0	38	8	4·7	29	7	4·1	4	1	4·0	0	0	0·0	0	0	0·0	0	0	0·0	34	5	6·8
June ...	5	2	2·5	0	0	0·0	0	0	0·0	22	3	7·3	18	1	18·0	34	2	17·0	263	12	21·9	1,863	76	24·5
July ...	0	0	0·0	11	1	11·0	26	4	6·5	38	5	7·6	71	6	11·8	115	11	10·5	96	10	9·6	366	24	15·2
August ...	22	1	22·0	17	5	3·4	8	2	4·0	13	2	6·5	7	1	7·0	0	0	0·0	25	4	6·2	65	5	13·0
September ...	96	18	5·3	61	12	5·1	81	15	5·4	119	23	5·2	60	10	6·0	222	29	7·7	106	15	7·1	132	17	7·8
October ...	437	66	6·6	262	47	5·6	359	51	7·0	815	92	8·9	487	59	8·3	299	33	9·1	126	23	5·5	64	12	5·3
November ...	432	56	7·7	73	12	6·1	422	58	7·3	2,543	230	11·1	770	85	9·1	392	41	9·6	73	10	7·3	0	0	0·0
December ...	653	86	7·6	161	23	7·0	484	66	7·3	1,536	139	11·1	751	80	9·4	627	50	12·5	115	14	8·2	295	16	18·4
Year ...	3,685	509	7·2	1,746	299	5·8	2,144	315	6·8	6,302	655	9·6	2,551	297	8·6	1,911	205	9·3	983	119	8·3	3,047	196	15·5

1902.	S.			S.S.W.			S.W.			W.S.W.			W.			W.N.W.			N.W.			N.N.W.			No. of Observations.		No. of hours.
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm	Variable.	Record lost.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.			
January ...	0	0	0·0	9	3	3·0	5	1	5·0	7	1	7·0	111	16	6·9	359	38	9·5	1,658	152	10·9	1,700	148	11·5	0	0	0
February ...	6	1	6·0	40	11	3·6	4	1	4·0	32	4	8·0	73	8	9·1	777	75	10·4	2,101	209	10·1	1,183	112	10·6	1	0	0
March ...	195	23	8·5	153	21	7·3	108	24	4·5	196	28	7·0	544	73	7·5	1,741	167	10·4	1,495	137	10·9	948	102	9·3	1	0	0
April ...	3	1	3·0	50	8	6·2	40	8	5·0	267	40	6·7	986	119	8·3	3,149	286	11·0	872	120	7·3	275	33	8·3	0	0	0
May ...	28	3	9·3	144	19	7·6	268	38	7·1	621	88	7·1	1,728	200	8·6	2,876	298	9·7	561	67	8·4	106	9	11·8	0	0	0
June ...	1,247	58	21·5	706	58	12·2	634	71	8·9	1,778	163	10·9	2,247	196	11·5	583	68	8·6	114	8	14·2	3	1	3·0	0	1	0
July ...	271	21	12·9	268	24	11·2	1,552	131	11·8	4,101	264	15·5	4,200	218	19·3	236	19	12·4	41	5	8·2	14	1	14·0	0	0	0
August ...	111	13	8·5	24	5	4·8	348	37	9·4	1,912	158	12·1	5,250	438	12·0	717	63	11·4	35	7	5·0	14	2	7·0	1	0	0
September ...	156	15	10·4	145	19	7·6	288	41	7·0	1,070	103	10·4	2,392	195	12·3	1,123	127	8·8	387	55	7·0	159	25	6·4	1	0	0
October ...	96	11	8·7	49	13	3·8	51	11	4·6	65	11	5·9	226	34	6·6	417	45	9·3	1,200	114	10·5	970	122	8·0	0	0	0
November ...	7	1	7·0	0	0	0·0	12	3	4·0	32	5	6·4	52	6	8·7	291	33	8·8	741	91	8·1	930	89	10·4	0	0	0
December ...	382	23	16·6	24	5	4·8	0	0	0·0	43	8	5·4	51	8	6·4	313	45	7·0	748	74	10·1	1,162	107	10·9	0	0	0
Year ...	2,502	170	14·7	1,612	186	8·7	3,310	366	9·0	10,124	873	11·6	17,860	1,511	11·8	12,582	1,264	10·0	9,953	1,039	9·6	7,464	751	9·9	4	1	0

Temperature of the Ground, 1902.

TABLE X.—*Showing for each Month, the Mean Temperature of the Ground and its Annual Variation, at the respective depths of 1, 9, 20, 60 and 132 inches below the surface.*

DEPTH.	1 INCH.		9 INCHES.		20 INCHES.		60 INCHES.		132 INCHES.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January ...	78·5	−4·8	80·4	−4·4	84·0	−3·6	85·9	−1·9	85·4	−0·9
February ...	79·1	−4·2	80·4	−4·4	83·7	−3·9	85·5	−2·3	85·3	−1·0
March	83·3	0·0	83·7	−1·1	85·8	−1·8	85·9	−1·9	85·3	−1·0
April	85·9	+2·6	86·8	+2·0	88·6	+1·0	87·2	−0·6	85·4	−0·9
May	88·5	+5·2	89·0	+4·2	90·8	+3·2	88·9	+1·1	86·1	−0·2
June	86·6	+3·3	88·2	+3·4	91·0	+3·4	90·2	+2·4	86·8	+0·5
July	84·0	+0·7	86·5	+1·7	89·8	+2·2	90·0	+2·2	87·4	+1·1
August... ...	83·5	+0·2	85·8	+1·0	88·8	+1·2	89·1	+1·3	87·5	+1·2
September ...	82·2	−1·1	84·4	−0·4	87·4	−0·2	88·2	+0·4	87·0	+0·7
October ...	85·3	+2·0	86·2	+1·4	88·3	+0·7	87·7	−0·1	86·4	+0·1
November ...	83·0	−0·3	84·5	−0·3	87·7	+0·1	87·9	+0·1	86·4	+0·1
December ...	79·2	−4·1	81·6	−3·2	85·5	−2·1	87·1	−0·7	86·2	−0·1
Year ...	83·3		84·8		87·6		87·8		86·3	

Extent of Cloudy Sky, 1902.

TABLE XI.—*Means of Estimations made at 6, 10, 14, 16 and 22 hours daily, the whole Sky being reckoned as 10.*

1902. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December
1	2·4	1·6	...	3·0	1·6	4·8	7·8	8·8	10·0	1·8	4·0	2·4
2	2·0	1·0	...	0·8	1·2	4·8	9·6	6·8	10·0	...	6·0	1·8
3	0·2	1·6	...	0·4	3·0	7·4	6·8	4·2	8·8	0·4	9·0	1·8
4	...	0·4	...	1·4	2·0	4·0	7·6	6·8	6·0	8·2	5·0	5·0
5	...	...	...	0·6	2·2	5·8	9·4	6·8	4·8	6·2	4·2	3·6
6	...	...	0·4	0·8	1·8	5·0	7·2	4·8	8·6	1·6	3·0	9·4
7	0·6	...	...	0·6	1·8	4·6	9·4	5·0	10·0	2·0	1·6	10·0
8	0·6	...	...	0·4	3·2	7·4	10·0	6·0	6·6	3·8	1·4	9·8
9	0·4	...	...	3·6	2·0	6·4	8·0	4·2	8·6	7·8	...	9·0
10	1·8	...	3·2	2·6	3·4	9·6	5·0	7·2	6·4	7·2	...	10·0
11	0·2	...	...	1·2	3·8	9·6	8·8	8·0	6·6	7·8	...	10·0
12	...	1·4	...	2·6	2·0	10·0	9·6	9·2	5·8	10·0	...	3·2
13	...	3·6	...	3·0	3·6	8·6	10·0	6·8	8·2	9·8	0·2	3·6
14	...	2·6	...	1·2	3·2	9·2	9·0	5·2	10·0	7·2	...	3·0
15	...	0·4	...	0·6	3·2	8·0	10·0	4·8	10·0	1·6	0·2	6·0
16	...	2·8	...	1·0	1·6	7·4	10·0	5·0	10·0	3·0	...	1·0
17	...	8·4	...	1·4	2·6	5·0	10·0	5·4	7·8	0·6	2·4	4·2
18	...	8·8	...	2·2	1·6	3·0	9·0	8·6	9·6	2·0	2·6	4·8
19	...	3·2	1·0	0·2	3·0	3·2	6·2	9·0	10·0	1·8	2·6	...
20	...	3·0	...	0·8	3·4	5·0	8·2	9·6	9·0	2·0	5·2	...
21	...	0·4	...	1·6	3·8	5·6	9·8	10·0	3·8	2.6	3·6	...
22	...	5·4	1·4	0·8	3·8	3·2	10·0	8·2	4·8	2.6	1·6	...
23	...	9·0	1·8	0·8	3·0	3·4	10·0	5·4	3·4	3·6	...	...
24	...	3·6	0·8	0·6	2·0	6·4	10·0	10·0	2·8	3·8	1·0	...
25	0·6	3·6	...	2·0	2·8	2·8	10·0	9·0	2·8	4·2	...	0·2
26	...	0·4	0·8	0·8	3·6	2·6	10·0	10·0	5·6	5·4	...	...
27	...	...	0·2	1·2	1·2	3·4	9·2	10·0	3·8	5·6	...	...
28	...	...	1·6	0·8	2·2	4·4	9·6	9·0	3·8	4·4	...	...
29	...		1·4	...	3·8	6·6	9·2	9·4	4·2	1·8	...	2·0
30	1·0		...	1·6	3·0	5·8	6·6	10·0	4·6	2·8	0·2	...
31	...		0·4		3·8		10·0	10·0		1·2		...
Monthly Mean.	0·8	2·2	0·4	1·3	2·7	5·8	8·9	7·5	6·9	4·0	1·8	3·3
Annual Variation ...	−3·5	−1·6	−3·4	−2·5	−1·1	+2·0	+5·1	+3·7	+3·1	+0·2	−2·0	−0·5

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December	1·5
Mean of the months from May to October	6·0
Mean for the year	3·8

Rainfall, 1902.

TABLE XII.—*Total Fall of Rain (in inches) as measured by Newman's Gauge, placed 4½ feet above the ground.*

1902. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
						In.	In.	In.	In.			
1	...	...	...	...	...	...	...	0·02	2·89	...	...	...
2	...	...	...	...	...	...	0·41	...	2·43	...	...	...
3	...	...	...	...	...	...	0·02	0·01	0·90	...	0·01	...
4	...	...	...	...	...	...	0·06	...	0·09	0·02	...	...
5	...	...	...	...	...	0.02	0·51	0·01	0·06	0·01	...	...
6	...	...	...	...	...	0·01	2·49	...	0·27	...	...	...
7	...	...	...	...	...	0·48	0·74	...	2·57	...	...	0 05
8	...	...	...	...	...	0·24	1·85	...	0·29	...	...	0·29
9	...	...	...	...	...	...	0·06	0·02	0·18	...	...	0·01
10	...	...	...	...	...	0·97	0·32	0·05	0·12	...	...	0·12
11	...	...	...	...	...	2·89	0·25	0·12	0·03	...	...	0·34
12	...	...	...	...	...	3·21	1·78	0·18	...	0·39	...	...
13	...	...	...	...	...	1·03	2·83	0·05	0·01	0·13	...	...
14	...	...	...	...	...	0·63	0·35	0·04	1·24	...	...	...
15	...	...	...	...	...	0·19	0·15	...	1·49	...	...	...
16	...	...	...	...	...	...	0·26	...	1·86	...	...	...
17	...	...	...	...	...	...	0·12	0·24	6·74	...	...	...
18	...	...	...	...	...	0·01	0·44	0·09	3·97	...	...	...
19	...	...	...	...	...	...	0·12	0·04	1·42	...	...	...
20	...	...	...	...	...	...	0·60	1·86	0·28	...	...	...
21	...	...	...	...	...	...	0·38	1·40	0·24	...	...	...
22	...	...	...	...	...	0·06	0·01	0·43	...	...	...	...
23	...	...	...	...	...	...	0·07	0·05	...	...	...	...
24	...	...	...	...	...	0·01	0·20	0·95	...	...	...	...
25	...	...	...	...	...	...	0·04	0·35	...	...	...	...
26	...	...	...	...	...	...	0·21	0·10	...	0·23	...	...
27	...	...	...	...	...	...	0·02	1·09	...	...	...	...
28	...	...	...	...	...	0·02	0·04	0·50	0·03	...	...	...
29	...		...	...	...	...	0·05	3·20	...	...	...	...
30	...		...	...	...	...	0·01	4·73	...	...	...	...
31	...		...		...		2·57	1·00		...		...
Monthly Total.	...	...	...	...	...	9·77	16·96	16·53	27·11	0·78	0·01	0·81
Number of Rainy Days ...	...	...	...	...	...	14	30	24	21	5	1	5

Total fall of rain in the year ... ... 71·97 inches.
Total number of rainy days in the year 100
The greatest daily fall of rain in the year (that of 17th September) was ... ... 6·74 inches.
No rain fell in the months of January, February, March, April and May, nor on any of the days left blank in the above table.

Table XIII.—Five-day Means, 1902.

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	*Rainfall.	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	*Rainfall.	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1	29·902	75·4	0·578	0·308	...	7·3 N.	1·2 W.	38	**29·516**	81·9	0·951	0·141	5·65	5·2 S.	7·0 W.
2	·905	78·4	·712	·267	...	4·6 N.	1·5 E.	39	·549	81·2	·933	·132	5·53	4·5 S.	11·5 W.
3	·923	76·8	·690	·236	...	6·1 N.	2·4 W.	40	·594	82·0	·929	·165	1·09	3·8 S.	**20·3 W.**
4	·942	74·3	·553	·302	...	8·2 N.	2·4 W.	41	·742	81·6	·925	·154	1·26	5·2 S.	14·2 W.
5	·918	75·1	·672	·203	...	7·5 N.	2·5 W.	42	·664	82·1	·928	·169	0·36	5·8 S.	12·9 W.
6	·932	75·7	·657	·237	...	4·4 N.	0·6 W.	43	·714	82·0	·917	·179	2·61	1·1 S.	15·1 W.
7	·970	74·3	**·551**	·303	...	**8·6 N.**	1·3 W.	44	·767	83·0	·878	·251	0·01	0·1 S.	9·3 W.
8	·989	75·1	·560	·318	...	6·0 N.	2·0 W.	45	·769	82·4	·879	·229	0·42	3·6 S.	10·3 W.
9	·983	77·2	·717	·221	...	2·6 N.	2·7 W.	46	·742	82·6	·889	·227	0·37	0·8 N.	6·2 W.
10	**30·019**	77·2	·651	·289	...	6·4 N.	3·1 W.	47	·656	80·4	·891	·148	3·78	2·2 S.	7·0 W.
11	29·986	76·5	·694	·222	...	6·8 N.	4·4 W.	48	·676	80·6	·906	·137	2·99	1·5 S.	16·0 W.
12	·915	76·7	·722	·201	...	6·0 N.	4·5 W.	49	·679	78·9	·905	**·084**	**14·25**	0·9 N.	16·0 W.
13	·833	79·1	·792	·206	...	2·9 N.	4·7 W.	50	·734	79·8	·919	·099	3·89	3·6 S.	8·4 W.
14	·854	80·3	·744	·294	...	5·1 N.	4·7 W.	51	·706	81·2	·927	·141	0·62	1·4 S.	8·1 W.
15	·852	79·8	·758	·264	...	5·3 N.	3·3 W.	52	·769	79·5	·902	·109	11·34	2·1 N.	3·5 W.
16	·835	80·7	·796	·257	...	2·9 N.	5·1 W.	53	·767	80·0	·912	·114	5·91	0·8 S.	7·8 W.
17	·839	82·0	·869	·229	...	2·4 N.	5·1 W.	54	·821	80·5	·840	·202	0·00	3·4 N.	1·9 W.
18	·838	83·5	·892	·259	...	0·6 S.	4·0 W.	55	·870	81·0	·852	·208	0·03	2·0 N.	1·2 W.
19	·849	82·4	·820	·290	...	2·7 N.	4·8 W.	56	·922	84·0	·943	·228	0·03	4·2 N.	0·6 W.
20	·820	82·9	·864	·264	...	5·6 N.	7·6 W.	57	·896	83·1	·904	·231	0·39	1·5 N	1·3 W.
21	·809	82·9	·895	·234	...	3·4 N.	6·6 W.	58	·906	81·5	·905	·173	0·13	2·8 N.	0·9 E.
22	·770	83·9	·915	·250	...	4·2 N.	7·2 W.	59	·897	82·9	·924	·203	0·00	6·1 N.	2·2 W.
23	·767	83·7	·861	·297	...	1·7 N.	6·3 W.	60	·851	84·1	·885	·287	0·23	1·9 N.	2·0 E.
24	·781	84·2	·889	·289	...	0·9 N.	6·6 W.	61	·804	82·7	·804	·319	0·00	4·1 N.	2·2 E.
25	·784	84·8	·913	·287	...	0·9 N.	6·1 W.	62	·895	82·8	·899	·227	0·01	1·4 N.	1·2 E.
26	·767	86·1	·918	·333	...	2·2 S.	6·6 W.	63	·937	81·8	·704	·391	...	3·3 N.	5·4 E.
27	·820	86·3	·906	·354	...	0·2 S.	7·1 W.	64	·884	79·7	·644	·376	...	4·9 N.	4·7 E.
28	·799	85·5	·885	·338	...	4·7 N.	9·0 W.	65	·963	80·5	·761	·285	...	4·8 N.	2·0 E.
29	·780	86·0	·920	·326	...	2·6 N.	8·0 W.	66	·970	79·7	·628	**·393**	...	5·6 N.	5·2 E.
30	·748	86·6	·929	·342	...	2·5 N.	8·4 W.	67	·938	78·5	·628	·354	...	6·6 N.	5·1 E.
31	·772	**87·2**	**·966**	·327	...	1·0 N.	6·3 W.	68	·867	78·2	·672	·298	...	3·6 N.	4·3 E.
32	·660	85·5	·947	·279	0·75	9·5 S.	1·3 W.	69	·840	76·5	·764	·149	0·81	0·0	**8·0 E.**
33	·525	80·4	·913	·127	8·73	**22·6 S.**	4·5 E.	70	·894	78·1	·815	·146	...	0·0	1·2 W.
34	·752	84·3	·945	·234	0·20	4·9 S.	9·8 W.	71	·933	77·4	·676	·269	...	6·7 N.	2·0 W.
35	·798	84·3	·901	·278	0·07	2·1 S.	14·1 W.	72	·913	74·9	·587	·282	...	5·0 N.	2·4 E.
36	·731	84·9	·929	·273	0·02	0·1 N.	8·6 W.	73	30·005	**74·1**	·555	·293	...	3·6 N.	3·6 E.
37	·652	84·1	·935	·236	0·49	4·6 S.	3·2 W.								

* Five-day sums, *not means*.

TABLE I.—Barometric Pressure, 1903.

Height of Barometer above mean Sea-level = 37 feet.

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	30·016	29·999	29·877	29·872	**29·820**	**29·783**	**29·694**	**29·601**	29·761	29·726	29·862	**29·858**
2	·002	30·028	·882	·847	·798	·764	·665	·624	·728	**·716**	·892	·888
3	29·983	29·985	·899	·854	·810	·770	·669	·620	·729	·732	·890	·931
4	·963	·981	·893	·852	·819	·773	·664	·670	·768	·740	·871	·929
5	·988	·982	·891	·854	·786	·727	·643	·711	·781	·761	·871	897
6	**30·027**	·995	·922	·857	·790	·695	·622	·703	·785	·784	·859	·894
7	·021	30·003	**·929**	·844	·779	·705	·616	·693	·802	·794	·890	·918
8	·013	·034	·908	·332	·766	·712	·635	·732	·802	·802	·904	·890
9	·002	**·048**	·838	·845	·767	·676	·583	·753	·768	**·858**	·885	·892
10	29·988	29·999	·838	·874	·773	·660	·588	·752	·743	·857	·885	·919
11	·952	·979	·839	**·882**	·778	·624	·626	**·779**	·732	·819	·914	·901
12	·921	·993	·901	·823	·784	·633	·577	·746	·739	·808	·922	·893
13	·918	·984	·905	·799	·754	**·606**	·474	·694	·735	·801	·888	·903
14	·922	30·007	·871	·811	·770	·607	**·377**	·690	·719	·792	·865	·895
15	·962	·006	·860	·815	·773	·630	·454	·734	·739	·811	·873	·924
16	·968	29·963	**·830**	·798	·807	·683	·523	·732	·728	·802	·865	·963
17	·953	·954	·830	·818	·783	·705	·567	·729	·710	·769	·901	·958
18	·942	·983	·869	·844	·781	·690	·624	·733	**·699**	·752	·937	·949
19	·915	·994	·883	·812	·748	·696	·661	·717	·706	·785	**·967**	·946
20	**·903**	30·016	·898	·782	·802	·686	·673	·663	·776	·843	·953	·975
21	·927	·015	·883	·798	·752	·682	·642	·661	·796	·849	·941	**·986**
22	·948	29·965	·881	·793	·651	·684	·628	·711	**·842**	·787	·937	·931
23	·940	·948	·878	·766	·621	·651	·655	·765	·839	·755	·946	·925
24	·957	·951	·873	**·707**	**·587**	·671	·632	·749	·822	·783	·937	·950
25	·993	·920	·892	·718	·650	·661	·614	·722	·828	·819	·882	·962
26	·989	·915	·922	·756	·708	·612	·583	·716	·832	·804	·860	·960
27	·915	·897	·892	·750	·754	·613	·569	·724	·764	·796	·860	·972
28	·918	**·886**	·888	·778	·780	·643	·575	·706	·738	·812	·834	·949
29	·917		·851	·767	·764	·714	·595	·661	·749	·831	·825	·947
30	·962		·874	·776	·760	·715	·606	·659	·747	·847	**·823**	·910
31	·994		·890		·763		·608	·691		·857		·892
Monthly Mean.	29·962	**29·980**	29·880	29·811	29·757	29·682	**29·601**	29·705	29·764	29·797	29·891	29·926
Annual Variation ..	+·149	+·167	+·067	−·002	−·056	−·131	−·212	−·108	−·049	−·016	+·078	+·113

	In.
Annual mean	29·813
The greatest mean daily barometric pressure in the year (that of 9th February) was	30·048
The least do. do. do. (that of 14th July) was	29·377
Difference =	0·671

TABLE II.—Temperature of the Air, 1903.

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1	72·8	70·3	76·0	76·3	83·8	83·7	80·9	78·9	79·0	81·6	80·0	78·0
2	73·3	71·1	74·7	**75·1**	84·3	83·8	82·6	78·8	79·0	78·2	80·9	77·6
3	74·0	71·7	73·7	76·4	84·3	84·4	82·4	78·8	79·4	**77·2**	80·9	**79·9**
4	74·9	70·9	**72·6**	78·9	83·4	84·5	82·8	79·1	81·0	80·0	**81·6**	78·8
5	76·2	68·7	73·1	79·9	83·5	84·8	82·1	81·1	80·9	81·9	81·5	77·2
6	75·8	**68·1**	74·5	79·2	83·3	85·0	82·4	80·8	81·5	82·1	80·9	77·0
7	77·7	70·0	74·3	80·2	84·1	85·1	**83·3**	81·4	81·6	81·7	79·5	76·5
8	**78·1**	75·1	73·5	79·0	**84·7**	85·7	82·9	81·4	81·5	81·0	78·9	76·6
9	77·8	75·6	73·3	77·7	84·0	85·8	83·1	80·6	81·6	80·0	78·8	75·7
10	75·6	74·5	73·9	77·5	83·4	85·9	80·3	81·2	80·8	79·4	80·0	75·1
11	75·1	73·3	75·3	78·1	83·7	**86·2**	81·9	81·1	80·1	79·1	80·1	74·4
12	74·4	72·2	74·6	79·6	83·5	85·7	80·0	81·6	81·2	80·7	80·0	74·9
13	72·7	71·9	73·9	81·2	83·5	83·3	79·6	81·8	81·7	81·7	78·5	72·8
14	72·6	70·8	74·6	82·5	84·0	80·4	80·0	81·9	82·5	82·2	76·8	73·2
15	72·6	70·0	74·6	83·9	83·2	79·9	79·5	82·0	**82·6**	82·5	75·5	74·2
16	72·2	70·7	76·3	82·1	83·7	81·8	79·6	**82·2**	81·6	82·9	75·5	75·4
17	71·9	70·8	75·6	82·2	84·0	81·2	79·6	81·5	81·6	82·3	75·3	74·6
18	70·5	72·0	75·4	82·7	84·1	80·5	80·9	81·0	79·2	82·5	77·7	74·7
19	70·3	72·8	75·2	82·4	84·6	80·8	80·1	79·2	78·0	82·8	76·8	75·7
20	72·2	73·5	74·7	81·7	84·7	84·2	**78·2**	**77·5**	79·9	**84·0**	76·6	75·8
21	73·3	75·1	75·6	80·9	82·6	83·2	78·5	77·9	80·2	82·0	76·0	76·2
22	74·3	76·5	77·0	81·8	83·9	79·7	81·0	79·8	80·5	81·0	76·2	75·3
23	75·7	75·8	76·2	84·4	80·1	**79·5**	81·7	81·0	79·4	80·8	75·1	74·4
24	75·0	76·4	77·1	**84·9**	**79·0**	80·4	80·8	80·6	**77·2**	81·3	75·0	74·1
25	72·8	77·7	77·4	84·5	79·2	81·2	80·5	80·4	80·7	81·6	**74·6**	73·6
26	70·3	77·8	77·5	83·2	82·3	81·7	80·6	80·4	81·4	81·8	74·8	70·7
27	**69·3**	77·4	77·9	84·2	82·8	83·2	81·0	78·4	82·0	80·2	75·5	**64·9**
28	69·6	**77·9**	78·9	84·2	82·6	82·2	81·7	80·2	81·4	80·3	76·4	70·9
29	69·4		**79·9**	83·4	83·0	81·8	79·2	81·0	81·7	79·9	77·8	73·6
30	70·4		78·9	83·9	83·1	82·3	79·0	81·2	81·5	78·2	77·6	73·4
31	71·2		76·7		83·5		78·8	78·7		79·1		73·5
Monthly Mean.	73·3	**73·2**	75·6	81·1	**83·2**	82·9	80·8	80·4	80·7	81·0	77·8	74·8
Annual Variation ...	−5·4	−5·5	−3·1	+2·4	+4·5	+4·2	+2·1	+1·7	+2·0	+2·3	−0·9	−3·9

	°
Annual mean	78·7
The greatest mean daily temperature of the air in the year (that of 11th June) was	86·2
The least do. do. do. (that of 27th December) was ...	64·9
Difference =	21·3

TABLE III.—Pressure of Vapour, 1903.

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	0·614	0·415	0·732	0·517	0·899	0·901	0·944	**0·919**	0·884	0·906	0·830	**0·806**
2	·627	·459	·694	**·488**	·909	**·892**	·958	·906	·868	·894	·899	·771
3	·636	·523	·648	·617	·916	·894	·956	·887	·871	·875	·872	·644
4	·648	·517	·622	·678	·872	·912	·953	·895	·888	·903	**·928**	·635
5	·726	**·366**	·615	·706	**·830**	·913	**·968**	·917	·891	**·951**	·892	·605
6	·739	·367	·608	·792	·904	·930	·959	·904	·897	·913	·787	·597
7	**·786**	·422	·583	·861	·915	·946	·945	·894	·901	·861	·695	·628
8	·740	·510	**·443**	·767	·918	·947	·949	·894	·906	·860	**·599**	·657
9	·673	·523	·506	·706	·905	·967	·968	·883	·896	·864	·625	·673
10	·631	·579	·606	·736	·862	·972	·926	·888	·883	·862	·659	·664
11	·700	·565	·662	·745	·851	**·982**	·943	·876	·905	·859	·700	·670
12	·614	·640	·609	·720	·877	·926	·915	**·870**	·921	·884	·724	·548
13	·472	·590	·510	·753	·907	·924	·918	·872	·926	·918	·693	·494
14	·526	·522	·505	·815	·900	·930	·940	·911	·927	·938	·614	·595
15	·558	·498	·621	·802	·863	·937	**·858**	·906	·931	·856	·675	·617
16	·477	·551	·686	**·932**	·847	·953	·892	·891	·932	·933	·685	·602
17	·446	·607	·698	·917	·846	·939	·913	·903	**·935**	·893	·698	·550
18	·463	·628	·664	·929	·841	·941	·930	·897	·896	·929	·663	·528
19	·520	·593	·676	·899	·893	·949	·914	·892	**·837**	·928	·601	·588
20	·581	·644	·671	·796	·934	·981	·880	·870	·884	·903	·620	·635
21	·645	·643	·720	·813	·910	·954	·898	·876	·900	·777	·660	·643
22	·660	·629	·729	·833	·903	·930	·940	·896	·883	·720	·687	·627
23	·618	·596	·713	·822	·896	·909	·946	·890	·890	·753	·643	·606
24	·690	·656	·779	·772	·893	·918	·931	·887	·841	·724	·655	·632
25	·560	**·763**	·760	·783	·924	·946	·910	·888	·901	·775	·637	·508
26	·532	·737	·777	·858	**·963**	·941	·901	·894	·919	·770	·650	·497
27	·430	·667	·811	·824	·932	·967	·924	·890	·900	·734	·649	**·319**
28	**·412**	·696	**·835**	·880	·901	·968	·934	·899	·919	·705	·684	·474
29	·428		·763	·920	·882	·954	·912	·903	·908	·682	·721	·568
30	·482		·814	·906	·876	·954	·912	·890	·892	**·653**	·783	·547
31	·492		·662		·885		·907	·889		·746		·587
Monthly Mean.	0·585	**0·568**	0·668	0·787	0·892	**0·939**	0·927	0·893	0·898	0·838	0·706	0·597
Annual Variation.	−·190	−·207	−·107	+·012	+·117	+·164	+·152	+·118	+·123	+·063	−·069	−·178

	In.
Annual mean	0·775
The greatest mean daily pressure of vapour in the year (that of 11th June) was ...	0·982
The least do. do. do. (that of 27th December) was ...	0·319
Difference =	0·663

TABLE IV.—Additional Capacity of the Air, 1903.

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	0·195	0·330	0·168	0·392	0·262	0·254	0·112	**0·070**	0·107	0·173	0·198	**0·155**
2	·196	·310	·168	·388	·271	·270	·157	·078	·124	·070	·160	·177
3	·209	·258	·185	·299	·264	·288	·153	·098	·137	**·060**	·186	**·389**
4	·224	·241	·182	·314	·275	·275	·168	·098	·170	·124	**·150**	·357
5	·179	·337	·205	·321	·320	·286	·131	·144	·164	·139	·184	·335
6	**·155**	·323	·247	·209	·238	·277	·151	·148	·180	·183	·271	·339
7	·168	·323	·267	·173	·260	·264	**·197**	·178	·179	·222	·316	·291
8	·226	**·375**	**·388**	·227	·277	·285	·177	·177	·170	·197	**·393**	·264
9	·281	·372	·326	·248	.265	·267	.167	·161	·183	·160	·367	·221
10	·255	·282	·236	·211	·287	.268	·108	·179	·168	·147	·376	·212
11	·174	·259	.220	·222	·306	·271	·148	·185	·124	·137	·335	·188
12	·239	·153	·247	·297	·272	**·310**	·111	·211	·143	·165	·305	·322
13	·337	·195	·333	·314	·242	·221	·094	**·216**	·157	·167	·286	·319
14	·277	·237	·357	·299	·269	·108	·085	·180	·184	·164	·312	·232
15	·248	·241	·241	·361	·276	**·082**	·150	·188	·184	·260	·213	·235
16	·319	·205	·227	**·166**	·311	·133	·117	·209	·150	·193	·200	·284
17	**·339**	**·152**	·194	·186	·322	·125	·099	·176	·146	·214	·182	·312
18	·288	·160	·222	·190	**·333**	102	·123	·162	·103	·185	·298	·341
19	·229	·219	·199	·209	·297	·108	·115	·106	·124	·195	·329	·311
20	·215	·190	·191	·289	·266	·192	·085	·075	·137	·268	·305	·264
21	·180	·234	·171	·247	·208	·185	**·076**	·080	·133	·321	·245	·267
22	·193	·290	·201	·258	·266	·084	·119	·123	·161	·344	·267	·256
23	·274	·298	·194	·365	·130	·101	·138	·167	·114	·303	·234	·251
24	·181	·256	·156	**·435**	·096	·120	·122	·156	**·093**	**3·52**	·219	·214
25	·248	·193	·182	·407	**·074**	·119	·130	·150	·149	·308	·228	·326
26	·211	·223	·169	·281	·142	·142	·143	·145	·156	·326	·221	·258
27	·294	·278	**·147**	·347	·190	·170	·135	·081	**·194**	·301	·241	·304
28	·316	·264	·157	·296	·216	·131	·148	·131	·153	·337	·231	·296
29	·296		·261	·229	·249	·130	·085	·156	·178	·341	·241	·267
30	·266		·177	·258	·258	·148	·081	·174	·186	·316	·166	·285
31	·275		·258		·263		·079	·092		·253		·243
Monthly Mean.	0·241	0·257	0·222	**0·281**	0·249	0·191	**0·126**	0·145	0·152	0·223	0·255	0·275
Annual Variation ...	+·023	+·039	+·004	+·063	+·031	−·027	−·092	−·073	−·066	+·005	+·037	+·057

	In.
Annual mean	0·218
The greatest mean daily additional capacity of the air in the year (that of 24th April) was ...	0·435
The least do. do. do. (that of 3rd October) was ...	0·060
Difference =	0·375

LIBRARY OF THE BOMBAY BRANCH ROYAL ASIATIC

Maxima and Minima of different Meteorological Elements, 1903.

TABLE V.—*In which are collected the individual observations in each month of the year, which showed the greatest and the least values of the following elements*, viz., *Height of Barometer, corrected for Temperature, Temperature of Air, Pressure of Vapour; and Additional Capacity of Air.*

1903.	HEIGHT OF BAROMETER.			TEMPERATURE OF AIR.			PRESSURE OF VAPOUR.			ADDITIONAL CAPACITY.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in.	in.	in.	°	°	°	in.	in.	in.	in.	in.	in.
January...	30·093	29·848	0·245	84·0	62·3	21·7	0·865	0·315	0·550	0·515	0·073	0·442
February .	·132	·825	·307	87·8	62·2	25·6	·831	·264	·567	·862	·044	·818
March ...	·002	·764	·238	84·2	65·7	18·5	·879	·319	·560	·661	·052	·609
April ...	29·961	·625	·336	90·4	69·2	21·2	·978	·376	·602	·687	·068	·619
May ...	·905	·516	·389	90·4	74·3	16·1	1·034	·716	·318	·541	·043	·498
June ...	·823	·554	·269	90·5	75·2	15·3	·042	·788	·254	·512	·029	·483
July ...	·749	·332	·417	87·4	75·5	11·9	·035	·794	·241	·311	·030	·281
August ...	·830	·555	·275	85·6	74·6	11·0	0·988	·807	·181	·307	·029	·278
September.	·905	·633	·272	86·3	73·9	12·4	1·001	·767	·234	·321	·037	·284
October...	·926	·650	·276	90·9	73·6	17·3	·035	·529	·506	·885	·029	·856
November.	30·049	·766	·283	89·1	69·0	20·1	0·968	·427	·541	·843	·073	·770
December.	·057	·795	·262	89·6	57·2	32·4	·859	·214	·645	·927	·019	·908
Year ...	30·132	29·332	0·800	90·9	57·2	33·7	1·042	0·214	0·828	0·927	0·019	0·908

Rainfall, 1903.

TABLE VI.—*Total fall of rain (in inches) as measured by F. Chambers's Self-registering Gauge, the funnel of which is 28 feet above the ground.*

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
			in.		in.	in.	in.	in.	in.	in.		
1	...	...	...	...	...	...	0·64	1·38	0·43	0·06	...	...
2	...	...	...	...	...	...	0·09	0·77	0·52	3·31	...	...
3	...	...	...	...	...	...	0·54	0·53	0·17	1·93	...	...
4	...	...	...	...	...	...	...	0·78	...	0·02	...	...
5	...	...	...	...	...	...	0·09	0·07	0·13	...	...	...
6	...	...	...	...	...	...	0·14	0·17	0·09	...	...	...
7	...	...	...	...	...	...	0·01	0·08	0·02	...	...	...
8	...	...	...	...	...	...	0·03	...	0·07	0·04	...	...
9	...	...	...	...	...	...	0·89	0·55	0·13	0·45	...	...
10	...	...	...	...	...	...	0·79	0·05	0·32	...	...	...
11	...	...	...	...	...	...	0·65	0·03	0·32	...	...	...
12	...	...	...	0·15	...	1·05	2·97	...	0·02	...	...	...
13	...	...	...	...	...	0·02	1·16	...	...	...	...	...
14	...	...	...	...	...	2·86	0·95	0·09	...	...	...	...
15	...	...	...	...	...	2·85	1·74	0·02	0·02	...	...	...
16	...	...	...	...	...	0·64	1·05	...	1·33	...	...	...
17	...	...	...	...	...	0·61	1·93	0·40	0·23	...	...	...
18	...	...	...	...	...	1·39	0·52	0·10	0·71	...	...	...
19	...	...	...	...	...	3·21	0·64	1·60	0·48	...	...	...
20	...	...	...	...	0·28	...	1·49	5·86	0·07	...	...	...
21	...	...	...	...	0·06	0·48	1·86	0·57	0·13	...	...	...
22	...	...	...	...	0·94	0·63	0·31	0·16	0·04	...	...	...
23	...	...	...	...	0·62	1·98	0·09	0·05	1·17	...	...	...
24	...	...	...	...	1·55	0·01	0·62	0·17	0·70	...	...	...
25	...	...	...	...	3·02	0·25	0·78	0·80	...	...	...	...
26	...	...	...	...	...	0·57	0·17	0·64	...	...	...	...
27	...	...	...	...	...	0·08	...	1·70	0·08	...	...	...
28	...	...	...	...	...	0·13	0·04	0·17	0·43	...	...	...
29	...	...	...	...	...	0·70	0·89	0·02	0·01	...	...	...
30	...	...	...	...	...	1·12	1·24	...	...	...	...	...
31	...	...	...		...		1·80	1·22	...	...		...
Monthly Total	...	...	0·15	...	6·47	18·58	24·12	17·98	7·62	5·81	...	...
Number of rainy days.	...	...	1	...	6	18	29	26	24	6	...	...

Total fall of rain in the year ... ... 80·73 inches.
Total number of rainy days in the year 110
The greatest daily fall of rain in the year (that of 20th August) was ... ... 5·86 inches.
No rain fell in the months of January, February, April, November and December, nor on any of the days left blank in the above table.

Mean Daily Velocities of the North and East Components of the Wind, 1903.

TABLE VII.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each day of the year 1903.*

In Miles per Hour.

1903.	MONTH.																							
Date.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ...	3·2 N	1·4 E	9·6 N	1·7 W	9·2 N	6·6 W	10·4 N	5·9 W	2·6 N	5·1 W	2·1 S	3·9 W	2·0 S	3·7 W	1·5 S	15·9 W	1·8 N	4·4 W	5·3 N	9·0 W	2·9 N	0·6 W	4·3 N	2·7 W
2 ...	4·3 N	1·7 E	9·1 N	2·6 W	3·7 N	6·7 W	11·2 N	4·7 W	3·5 N	6·7 W	1·3 N	5·4 W	2·9 S	3·1 W	2·2 S	15·0 W	0·8 N	9·7 W	3·3 N	9·0 W	4·2 S	3·4 W	3·8 N	1·3 W
3 ...	3·8 N	2·7 E	6·8 N	2·0 W	7·0 N	4·1 W	8·8 N	4·3 W	1·9 N	5·6 W	3·3 N	6·5 W	6·6 S	0·6 E	1·8 S	16·7 W	0·6 N	12·4 W	0·4 N	2.1 E	0·8 S	0·4 W	7·1 N	5·5 E
4 ...	1·5 N	1·7 E	11·1 N	4·6 W	9·8 N	4·8 W	9·5 N	5·0 W	3·4 N	7·3 W	0·4 N	6·7 W	11·2 S	1·2 E	5·2 S	15·8 W	1·4 N	10·4 W	3·9 N	5·2 W	0·3 S	2·9 W	6·2 N	6·7 E
5 ...	1·3 S	1·0 W	12·8 N	4·5 W	8·9 N	3·9 W	5·2 N	4·6 W	4·5 N	6·3 W	0·8 S	5·8 W	9·6 S	3·0 E	3·6 S	14·2 W	1·2 N	9·9 W	3·1 N	4·9 W	0·7 S	2·2 W	6·4 N	2·9 E
6 ...	4·6 N	1·3 W	13·9 N	2·0 W	9·3 N	5·0 W	0·7 S	3·9 W	3·3 N	6·3 W	2·6 S	3·9 W	7·2 S	0·9 E	0·4 S	15·8 W	0·0	8·3 W	2·5 N	7·3 W	5·3 N	0·3 W	5·9 N	5·3 E
7 ...	4·2 N	0·7 E	9·6 N	1·2 W	10·8 N	4·5 W	8·6 S	3·2 W	3·2 N	8·2 W	2·4 N	5·0 W	10·4 S	2·2 E	2·2 S	16·0 W	1·2 S	7·8 W	3·9 N	7·1 W	7·7 N	0·2 E	2·6 N	1·9 E
8 ...	5·2 N	0·3 E	8·5 N	3·7 E	11·1 N	4·0 W	2·8 S	4·4 W	0·5 N	6·5 W	0·5 N	6·0 W	14·8 S	1·3 E	1·6 S	14·6 W	0·9 S	10·8 W	1·5 N	7·1 W	9·1 N	0·1 E	3·2 N	2·7 E
9 ...	6.1 N	0·4 E	8·0 N	0·8 E	3·9 N	2·2 W	0·7 S	3·4 W	1·1 S	5·6 W	2·2 N	5·7 W	8·3 S	1·9 W	1·6 S	12·8 W	0·5 S	15·8 W	5·4 S	1·2 W	8·3 N	0·1 W	1·7 N	3·2 E
10 ...	4·3 N	1·1 W	6·6 N	1·0 W	3·5 N	6·1 W	3·6 N	4·4 W	2·5 S	4·4 W	0·3 S	5·4 W	8·1 S	7·8 W	1·3 S	10·8 W	4·2 S	13·3 W	11·2 S	1·9 E	8·4 N	1·4 E	5·1 N	0·1 W
11 ...	4·6 N	1·6 W	8·0 N	6·0 W	0·9 S	1·0 W	5·3 N	5·4 W	0·2 S	5·2 W	0·9 N	6·7 W	4·2 S	15·0 W	0·7 S	6·6 W	4·3 S	6·9 W	5·7 S	1·6 E	8·0 N	0·9 W	5·2 N	1·6 W
12 ...	6·6 N	0·9 W	8·1 N	3·8 W	11·2 N	7·5 W	9·1 N	3·9 W	1·8 N	6·4 W	1·2 N	3·9 W	5·5 S	15·3 W	1·7 S	10·1 W	2·1 S	3·7 W	1·8 S	2·2 W	6·2 N	1·5 W	8·6 N	1·5 W
13 ...	10·4 N	2·5 W	8·0 N	3·4 W	13·7 N	4.2 W	10·3 N	6·3 W	6·2 N	7·9 W	9·0 S	4·1 E	5·3 S	15·7 W	5·0 S	8·4 W	1·9 S	4·2 W	5·7 N	2·8 W	4·1 N	1·1 W	8·1 N	1·3 W
14 ...	5·2 N	1·2 W	7·5 N	4·6 W	9·1 N	5·0 W	9·7 N	5·7 W	2·4 N	6·7 W	13·1 S	11·7 E	10·7 S	11·5 W	6·1 S	6·0 W	0·8 N	9·0 W	5·1 N	2·1 W	4·0 N	0·3 E	4·9 N	0·3 E
15 ...	3·5 N	0·3 W	5·0 N	3·9 W	10·4 N	6·3 W	0·6 N	3·6 W	3·9 N	6·5 W	23·7 S	6·9 E	7·5 S	20·1 W	1·9 S	7·1 W	2·6 N	5·0 W	5·4 N	0·8 W	2·4 N	0·9 W	1·3 N	0·3 E
16 ...	11·6 N	2·5 W	6·5 N	4·6 W	4·4 N	3·3 W	3·7 S	3·2 W	0·4 N	7·4 W	18·5 S	1·3 E	5·5 S	17·0 W	1·2 S	7·6 W	3·7 N	4·4 W	1·1 S	0·4 W	7·9 N	3·5 W	2·8 N	0·7 E
17 ...	13·2 N	3·5 W	4·9 N	2·6 W	4·0 N	4·4 W	5·4 S	3·0 W	2·0 N	8·8 W	14·1 S	1·2 E	2·9 S	16·6 W	2·6 N	9·6 W	2·9 N	1·9 W	3·5 N	2·5 W	7·7 N	3·7 W	6·5 N	0·2 W
18 ...	12·3 N	3·5 W	5·7 N	2·8 W	4·4 N	3·0 W	3·4 S	2·9 W	4·8 N	9·6 W	10·0 S	1·3 W	1·6 S	17·1 W	3·4 N	10·4 W	0·1 S	4·8 W	5·2 N	3·5 W	5·2 N	3·5 E	5·3 N	3·7 E
19 ...	7·2 N	1·9 W	5·9 N	3·5 W	3·8 N	4·5 W	1·7 S	5·3 W	7·0 N	8·4 W	6·5 S	1·0 W	4·7 S	14·9 W	2·6 N	13·6 W	3·5 S	11·0 W	3·9 N	1·9 W	5·1 N	3·2 E	6·0 N	0·7 E
20 ...	0·4 S	0·8 E	3·9 N	2·5 W	4·5 N	4·0 W	1·2 S	5·4 W	4·0 S	1·0 E	0·0	15·0 W	3·7 S	16·0 W	5·8 N	14·3 W	2·5 S	0·6 E	3·3 N	0·2 E	3·7 N	3·0 E	4·4 N	1·6 E
21 ...	1·5 S	1·7 W	7·4 N	3·2 W	8·2 N	4·8 W	2·0 N	5·2 W	5·2 N	0·2 E	1·3 S	13·8 W	4·1 S	15·9 W	2·1 N	11·1 W	5·8 S	2·5 W	4·0 N	0·2 W	5·1 N	1·4 E	4·6 N	1·7 E
22 ...	6·9 N	2·1 W	7·6 N	3·6 W	7·8 N	6·6 W	4·7 N	8·0 W	3·5 N	1·5 E	10·2 S	1·2 W	0·3 S	18·9 W	0·3 N	9·3 W	1·4 S	3·3 W	4·4 N	0·5 E	4·8 N	3·6 E	4·2 N	0·8 E
23 ...	6·9 N	0·4 W	8·5 N	3·0 W	7·6 N	6·8 W	11·0 N	7·0 W	0·1 N	13·1 E	6·5 S	3·2 W	0·2 S	17·0 W	1·9 S	8·5 W	1·7 N	2·2 W	6·7 N	0·2 W	2·6 N	2·1 E	2·0 N	1·1 E
24 ...	11·1 N	4·5 W	7·8 N	5·2 W	5·5 N	6·0 W	12·3 N	6·6 W	18·7 S	18·4 E	7·3 S	2·3 W	0·5 N	18·2 W	5·2 S	11·6 W	0·8 N	0·7 E	6·6 N	0·9 W	2·3 N	0·1 E	5·4 N	0·0
25 ...	12·3 N	3·9 W	4·0 N	4·2 W	0·4 N	4·9 W	9·4 N	6·9 W	7·9 S	8·4 W	4·9 S	3·5 W	0·0	24·5 W	5·5 S	14·3 W	1·1 S	0·8 W	4·0 N	2·3 E	3·3 N	0·3 E	8·4 N	3·3 W
26 ...	11·9 N	4·9 W	6·4 N	4·9 W	0·5 S	4·7 W	5·5 N	7·9 W	8·1 S	1·4 W	4·2 S	4·6 W	2·1 S	25·1 W	3·9 S	14·0 W	2·7 N	4·0 W	4·4 N	3·2 E	3·8 N	0·0	12·0 N	4·8 W
27 ...	11·4 N	2·7 W	8·8 N	5·3 W	4·5 N	6·0 W	6·9 N	4·9 W	2·2 S	5·2 W	10·2 S	3·1 W	1·9 S	21·6 W	0·2 N	15·3 W	4·2 N	5·6 W	5·7 N	0·1 E	6·0 N	0·9 E	12·1 N	2·9 W
28 ...	9·8 N	2·7 W	11·4 N	6·8 W	6·1 N	6·4 W	4·9 N	6·7 W	0·6 N	5·6 W	13·4 S	2·7 W	0·3 S	18·1 W	0·3 N	13·7 W	0·2 N	2·4 W	6·4 N	2·0 E	5·2 N	0·1 W	7·7 N	1·1 E
29 ...	8·7 N	1·8 W			9·9 N	6·6 W	0·1 S	4·7 W	2·2 N	5·2 W	5·7 S	2·6 W	0·3 S	14·7 W	3·5 N	8·5 W	4·7 N	1.1 W	6·9 N	1·0 E	4·1 N	0·8 E	7·9 N	3·0 E
30 ...	6·1 N	1·4 W			10·1 N	8·6 W	1·0 N	6·6 W	2·3 S	3·8 W	2·1 S	4·9 W	0·5 N	17·6 W	3·2 N	9·0 W	5·4 N	3·5 W	5·9 N	0·7 E	3·6 N	2·4 W	6·7 N	0·9 E
31 ...	8·8 N	1·6 W			11·1 N	9·1 W			5·5 S	2·6 W			2·8 S	16·1 W	1·1 N	6·8 W			3·4 N	0·9 E			6·2 N	1·8 W
Monthly Mean ...	6·5 N	1·3 W	7·9 N	3·2 W	6·9 N	5·2 W	3·7 N	5·1 W	0·3 N	4·1 W	5·2 S	3·3 W	4·6 S	12.1 W	1·0 S	11·7 W	0·1 S	5·9 W	2.9 N	1·7 W	4·4 N	0·1 W	5·7 N	0·7 E
Annual Variation ...	4·2 N	3·1 E	5·6 N	1·2 E	4·6 N	0·8 W	1·4 N	0·7 W	2·0 S	0·3 E	7·5 S	1·1 E	6·9 S	7·7 W	3·3 S	7·3 W	2·4 S	1·5 W	0·6 N	2·7 W	2·1 N	4·3 E	3·4 N	5·1 E

The Velocities of the Mean Components for the year are 2·3 N. and 4·4 W.

Velocity of Wind, 1903.

Robinson Beckley's Anemograph.

Table VIII.—*Mean Velocity of the Wind, in miles per hour, without regard to the direction from which it blew, for each Day of Bombay Civil Time: also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1903.	MONTH.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	7·7	11·7	11·8	13·3	6·0	6·8	**5·3**	16·2	7·9	10·7	7·5	7·5
2	6·9	10·4	7·8	13·3	8·7	6·2	6·7	15·4	12·5	10·2	6·7	7·5
3	6·7	9·0	9·5	10·7	7·5	7·5	8·9	**17·0**	14·2	8·2	6·6	11·3
4	6·0	12·8	12·2	11·2	8·6	6·8	12·3	16·8	10·8	9·6	**4·4**	13·4
5	**5·4**	14·6	10·9	7·9	9·0	6·1	10·9	14·9	10·2	8·0	6·7	10·0
6	7·6	**14·8**	11·6	**4·5**	8·2	7·1	8·6	15·9	8·3	8·7	7·7	11·9
7	7·6	10·7	12·4	10·3	10·1	7·2	12·6	16·5	8·1	8·3	10·2	6·7
8	7·5	13·1	13·1	7·8	8·2	7·7	15·7	15·0	11·0	7·4	**11·4**	7·0
9	9·3	11·6	6·7	6·3	7·3	8·2	11·6	13·4	**15·9**	7·3	10·1	6·7
10	5·4	8·0	7·3	7·2	5·6	**6·0**	15·7	11·0	14·2	12·0	10·8	7·5
11	6·9	10·3	6·9	9·3	5·5	7·2	15·8	**6·8**	9·7	7·0	10·2	6·7
12	8·1	9·5	14·6	10·9	6·8	9·7	16·6	10·5	5·7	6·3	9·4	10·7
13	10·9	10·2	**14·9**	12·6	10·4	14·2	17·0	10·0	6·2	8·5	6·6	9·8
14	7·0	10·0	11·4	11·8	8·2	20·2	16·9	8·8	9·1	7·2	7·1	7·1
15	7·2	8·0	12·8	6·5	8·2	**25·5**	23·0	7·8	7·8	8·0	7·3	**5·1**
16	12·5	9·4	6·9	5·1	7·6	21·1	18·2	8·0	8·3	**5·2**	10·6	7·5
17	**14·1**	8·1	7·0	7·5	9·2	15·0	17·3	10·2	8·0	5·5	9·3	9·3
18	13·1	9·0	8·5	5·0	11·0	12·4	17·4	11·5	9·1	7·3	11·0	10·0
19	9·2	7·5	7·5	8·7	12·7	12·6	16·2	15·6	13·2	5·7	10·2	8·9
20	6·2	7·2	7·4	6·0	15·1	15·0	16·8	16·9	13·5	6·0	9·6	7·6
21	6·4	9·4	11·4	6·7	10·4	14·6	17·0	12·2	8·3	6·6	10·4	8·0
22	9·0	9·1	11·1	10·8	8·2	13·7	19·0	9·5	6·2	8·0	10·9	8·7
23	8·9	10·3	11·1	14·3	16·8	10·9	17·0	8·9	**4·4**	9·0	8·4	6·1
24	12·5	9·8	9·0	**14·7**	**42·1**	12·1	18·3	12·7	6·8	8·4	6·6	8·2
25	13·7	**6·6**	7·0	12·4	19·2	8·1	24·5	15·5	7·2	9·1	6·2	10·5
26	13·5	9·7	**6·3**	11·4	10·1	7·0	**25·5**	14·7	6·3	9·7	6·8	**13·6**
27	12·5	10·7	8·0	9·5	6·2	11·4	22·0	15·6	7·8	8·6	8·2	12·6
28	11·2	13·9	9·3	10·5	6·0	14·6	18·2	13·7	5·9	**12·2**	7·6	9·7
29	10·2		12·7	5·2	6·9	7·8	14·8	9·7	7·4	11·5	6·5	11·9
30	8·6		13·6	8·1	**4·7**	7·4	18·0	9·8	8·7	9·6	5·8	9·3
31	10·5		14·7		7·2		16·6	10·0		7·3		8·3
Monthly Mean.	9·1	10·2	10·2	9·3	10·1	11·0	**16·0**	12·6	9·1	**8·3**	8·4	9·0
Annual Variation	−1·2	−0·1	−0·1	−1·0	−0·2	+0·7	+5·7	+2·3	−1·2	−2·0	−1·9	−1·3

	Miles.
The mean velocity for June to August	13·2
The mean velocity for September to May	9·3
The mean velocity for the year	10·3
The greatest monthly mean (that of July)	16·0
The least monthly mean (that of October)	8·3
Difference =	7·7
The greatest mean daily Velocity of Wind in the year (that of 24th May) was	42·1
The least do. do. do. (that of 23rd September) was ...	4·4
Difference =	37·7

Velocity of Wind, 1903.

Dines' Anemograph.

TABLE VIII *a.*—*Mean Velocity of the Wind, in miles per hour, for each Day of Bombay Civil Time; also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	5·5	8·9	9·2	10·2	4·9	5·1	**3·8**	10·8	6·0	7·5	5·4	5·7
2	5·0	8·0	6·2	10·2	7·0	4·8	4·9	10·2	8·6	7·0	4·9	5·7
3	4·7	6·8	7·3	8·2	6·0	5·4	7·2	**11·7**	9·9	5·7	4·6	7·7
4	**4·0**	9·6	9·4	8·6	6·7	5·0	9·5	11·7	7·6	6·7	**3·0**	9·3
5	4·6	**11·0**	8·4	6·2	7·0	4·7	8·9	10·2	7·0	5·7	5·0	7·0
6	5·5	10·9	8·7	**3·7**	6·3	5·7	6·7	10·8	5·8	6·3	5·5	8·2
7	5·9	7·8	9·4	8·2	8·0	5·5	10·4	11·2	5·5	5·8	7·2	4·8
8	5·5	9·5	9·8	6·1	6·6	5·7	12·2	10·1	8·2	5·2	**8·0**	5·0
9	7·0	8·4	5·1	5·5	5·9	6·0	8·4	9·0	**11·0**	5·7	7·1	5·0
10	4·2	6·3	5·6	5·7	4·7	**4·8**	11·6	7·3	9·7	**8·9**	7·5	5·4
11	5·2	7·8	5·5	7·1	4·5	5·2	11·1	**4·9**	6·7	5·6	7·2	5·0
12	6·0	7·3	**11·2**	8·3	5·5	6·9	11·7	7·2	4·0	4·5	6·5	7·7
13	8·2	7·6	11·2	9·5	8·0	10·9	11·9	6·9	4·5	6·2	4·7	7·4
14	5·4	7·6	8·8	8·9	6·5	17·3	12·4	6·6	6·4	5·0	5·0	5·4
15	5·2	6·2	9·6	5·4	6·4	**19·0**	16·1	5·7	5·5	5·7	5·2	**3·9**
16	9·2	7·1	5·3	4·8	5·7	15·1	12·7	5·5	6·1	**3·9**	7·4	5·4
17	**10·5**	6·1	5·2	6·5	6·9	11·5	12·0	7·5	6·0	4·4	6·4	6·8
18	9·8	6·8	6·2	4·5	8·5	9·0	11·8	8·3	6·7	5·5	7·5	7·1
19	6·9	5·6	5·7	7·1	9·4	10·0	11·0	11·0	9·2	4·1	6·8	6·3
20	5·2	5·5	5·9	5·2	10·4	10·4	11·4	11·7	9·5	4·4	6·8	5·4
21	5·0	7·0	8·5	5·7	7·2	10·2	11·5	8·7	5·8	4·9	7·4	5·9
22	6·9	6·8	8·4	8·5	5·7	10·5	12·8	6·6	4·4	6·0	7·4	6·0
23	7·0	7·9	8·5	11·0	11·6	7·9	11·6	6·1	**3·1**	6·7	5·8	4·5
24	9·3	7·5	6·8	**11·2**	**29·0**	9·1	12·5	8·8	**5·1**	6·1	4·6	5·9
25	10·4	**5·1**	5·7	9·7	13·2	6·0	16·6	10·6	5·4	6·4	4·3	7·5
26	10·5	7·6	**4·7**	9·0	7·0	5·2	**17·2**	10·0	4·4	6·6	4·8	**9·8**
27	9·4	8·3	6·1	7·6	4·3	9·0	14·7	10·6	5·6	6·1	5·6	8·8
28	8·5	10·5	6·9	8·4	4·2	11·2	12·2	9·3	4·2	8·2	5·5	6·9
29	7·9		9·5	4·1	4·9	5·6	10·0	6·8	5·1	8·0	4·8	8·1
30	6·5		10·2	6·5	**4·0**	4·9	12·2	7·0	6·2	6·7	4·2	6·4
31	7·7		11·0		5·7		11·1	7·2		5·3		5·7
Monthly Mean	6·8	7·7	7·7	7·4	7·5	8·2	**11·2**	8·7	6·4	6·0	**5·9**	6·4
Annual Variation.	−0·7	+0·2	−0·2	−0·1	0·0	+0·7	+3·7	**+1·2**	−1·1	−1·5	−1·6	−1·1

	Miles.
The mean velocity for June to August	... 9·4
The mean velocity for September to May	... 6·9
The mean velocity for the year	... 7·5
The greatest monthly mean (that of July)	...11·2
The least monthly mean (that of November)	... 5·9
Difference =	5·3
The greatest mean daily Velocity of Wind in the year (that of 24th May) was ...	...29·0
The least do. do. do. (that of 4th November) was...	... 3·0
Difference =	26·0

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1903.

TABLE IX.—*Showing, for the year 1903, the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions: and also the number of hourly Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1903.	N.			N.N.E.			N.E.			E.N.E.			E.			E.S.E.			S.E.			S.S.E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ...	1,155	141	8·2	402	69	5·8	316	51	6·2	520	75	6·9	338	48	7·0	44	7	6·3	0	0	0·0	12	2	6·0
February ...	1,051	137	7·7	308	46	6·7	297	42	7·1	376	39	9·6	37	7	5·3	0	0	0·0	7	1	7·0	0	0	0·0
March ...	620	76	8·2	302	45	6·7	131	20	6·5	114	17	6·7	53	7	7·6	15	3	5·0	19	3	6·3	18	3	6·0
April ...	492	71	6·9	172	23	7·5	42	7	6·0	43	6	7·2	24	4	6·0	0	0	0·0	49	10	4·9	54	6	9·0
May ...	151	24	6·3	64	13	4·9	239	11	21·7	286	12	23·8	205	11	18·6	188	11	17·1	359	17	21·1	421	26	16·2
June ...	25	2	12·5	36	3	12·0	29	6	4·8	35	4	8·7	185	13	14·2	50	5	10·0	272	21	13·0	1,681	95	17·7
July ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	70	6	11·7	0	0	0·0	228	22	10·4	825	60	13·7
August ...	18	1	18·0	7	1	7·0	0	0	0·0	7	1	7·0	7	1	7·0	19	2	9·5	0	0	0·0	0	0	0·0
September ...	81	17	4·8	17	5	3·4	95	19	5·0	89	17	5·2	104	16	6·5	199	28	7·1	112	20	5·6	326	25	13·0
October ...	245	45	5·4	115	21	5·5	319	45	7·1	715	93	7·7	364	43	8·5	32	4	8·0	112	21	5·3	342	36	9·5
November ...	557	83	6·7	221	40	5·5	464	70	6·6	1,062	125	8·5	384	41	9·4	127	21	6·0	23	4	5·7	90	14	6·4
December ...	760	105	7·2	139	27	5·2	730	95	7·7	1,306	140	9·3	589	77	7·6	35	6	5·8	0	0	0·0	0	0	0·0
Year ...	5,155	702	7·3	1,783	293	6·1	2,662	366	7·3	4,553	529	8·6	2,360	274	8·6	709	87	8·1	1,181	119	10·0	3,769	267	14·1

1903.	S.			S.S.W.			S.W.			W.S.W.			W.			W.N.W.			N.W.			N.N.W.			No. of Observations.	
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.		
January ...	28	5	5·6	14	3	4·7	5	1	5·0	126	26	4·8	88	14	6·3	234	33	7·0	1,285	112	11·5	2,208	156	14·2	1	0
February ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	524	45	11·6	2,283	192	11·9	1,968	163	12·1	0	0
March ...	8	1	8·0	26	7	3·7	9	2	4·5	90	12	7·5	103	9	11·4	1,381	158	8·7	3,093	234	13·2	1,591	141	11·3	6	0
April ...	319	37	8·6	236	40	5·9	203	44	4·6	464	64	7·2	348	45	7·7	902	96	9·4	2,371	183	13·0	987	77	12·8	5	2
May ...	366	16	22·9	265	38	7·0	402	54	7·4	566	63	9·0	992	133	7·5	1,746	167	10·5	858	96	8·9	380	49	7·8	3	0
June ...	1,507	92	16·4	562	57	9·9	281	45	6·2	729	91	8·0	1,540	160	9·6	828	104	8·0	126	16	7·9	43	6	7·2	0	0
July ...	445	35	12·7	521	52	10·0	669	57	11·7	3,078	195	15·8	5,897	306	19·3	135	11	12·3	0	0	0·0	0	0	0·0	0	0
August ...	0	0	0·0	70	8	8·7	330	39	8·5	2,845	222	12·8	4,685	351	13·3	1,050	92	11·4	256	21	12·2	85	5	17·0	0	0
September...	109	12	9·1	162	22	7·4	126	18	7·0	847	86	9·8	2,691	244	11·0	976	111	8·8	478	55	8·7	136	25	5·4	0	0
October ...	182	19	9·6	124	19	6·5	14	3	4·7	46	8	5·7	358	44	8·1	1,159	114	10·2	1,425	154	9·3	617	70	8·8	5	0
November ...	75	14	5·4	55	9	6 1	13	3	4·3	29	4	7·2	166	23	7·2	596	68	8·8	1,323	126	10·5	833	75	11·1	0	0
December ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	88	13	6·8	388	46	8·4	1,191	111	10·7	1,467	124	11·8	0	0
Year ...	3,039	231	13·2	2,035	255	8·0	2,052	266	7·7	8,820	771	11·4	16,956	1,342	12·6	19,916	1,045	9·5	14,689	1,300	11·3	10,315	891	11·6	20	2

Temperature of the Ground, 1903.

TABLE X.—*Showing for each Month, the Mean Temperature of the Ground, and its Annual Variation, at the respective depths of* 1, 9, 20, 60 *and* 132 *inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January ...	76·2	−4·9	78·9	−4·0	83·3	−2·7	85·8	−0·8	85·5	0·0
February...	76·2	−4·9	77·7	−5·2	81·5	−4·5	84·6	−2·0	85·0	−0·5
March ...	78·6	−2·5	80·1	−2·8	83·0	−3·0	84·4	−2·2	84·5	−1·0
April ...	83·7	+2·6	84·4	+1·5	86·2	+0·2	85·5	−1·1	84·8	−0·7
May ...	85·5	+4·4	86·9	+4·0	89·3	+3·3	87·7	+1·1	85·3	−0·2
June ...	84·7	+3·6	86·6	+3·7	89·3	+3·3	88·6	+2·0	86·0	+0·5
July ...	82·5	+1·4	85·1	+2·2	88·2	+2·2	88·3	+1·7	86·4	+0·9
August ...	82·3	+1·2	84·5	+1·6	87·5	+1·5	87·5	+0·9	86·2	+0·7
September.	82·8	+1·7	84·7	+1·8	87·4	+1·4	87·3	+0·7	85·8	+0·3
October ...	83·0	+1·9	84·7	+1·8	87·2	+1·2	87·0	+0·4	85·5	0·0
November .	80·4	−0·7	82·1	−0·8	85·7	−0·3	86·6	0·0	85·5	0·0
December .	77·6	−3·5	79·4	−3·5	83·5	−2·5	85·6	−1·0	85·1	−0·4
Year ...	81·1		82·9		86·0		86·6		85·5	

Extent of Cloudy Sky, 1903.

TABLE XI.—*Means of Estimations made at 6, 10, 14, 16 and 22 hours daily, the whole Sky being reckoned as 10.*

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
						MONTH.						
1	2·0	...	1·4	...	...	3·8	8·2	**10·0**	**10·0**	8·6	2·0	...
2	4·4	...	**3·0**	...	2·0	4·6	7·6	10·0	10·0	**10·0**	5·6	3·6
3	6·0	...	2·0	0·2	0·8	**2·0**	7·4	10.0	8·2	9·6	6·4	2·2
4	0·8	...	0·6	...	1·2	5·6	**6·4**	8·6	5·0	6·8	**7·2**	1·0
5	0·8	...	0·4	...	0·6	3·4	**10·0**	8·6	8·4	7·2	1·6	**4·8**
6	2·6	...	1·6	0·2	3·0	2·2	9·0	10·0	7·0	4·4	3·8	1·4
7	...	...	0·2	2·0	0·6	4·6	8·2	9·0	7·6	2·6	3·0	...
8	2·2	...	...	0·6	0·2	5·2	7·0	9·0.	5·8	9·2	1·6	...
9	7·0	...	...	2·4	3·2	7·0	8·8	8·0	7·0	4·8	...	1·4
10	9·2	...	...	0·6	3·0	7·4	9·4	8·0	6·4	5·2	...	0·2
11	4·2	...	0·4	0·8	3·0	8·6	9·2	7·8	7·4	8·4	2.0	0·2
12	4·2	...	2·2	...	4·2	8·6	10·0	6·6	6·2	6·0	0·2	...
13	6·0	...	...	1·8	7·2	9·4	10·0	7·2	**3·4**	1·0	...	...
14	**9·4**	...	...	3·4	5·6	**10·0**	9·0	6·4	6·8	1·8	0·8	...
15	4·6	...	...	**5·0**	2·0	10·0	8·4	**5·2**	9·0	0·1	...	...
16	3·0	...	...	2·2	2·8	6·8	10·0	5·6	6·4	7·4	...	...
17	3·6	...	...	2·4	3·0	4·4	9.8	8·8	9·0	5·6	...	...
18	1·6	**1·0**	...	3·8	1·0	7·6	10·0	9·0	9·6	2·2	...	...
19	0·2	...	...	1·0	2·6	8·6	10·0	10·0	8·8	3·2	...	...
20	...	...	1·4	...	4·8	5·4	10·0	10·0	5·0	4·2	0·4	...
21	0·8	1·0	...	1·6	7·8	6·2	10·0	10·0	7·2	...	...	...
22	1·8	0·4	...	0·6	9·0	9·8	9·6	6·0	9·8	...	...	3·6
23	...	0·2	...	...	9·8	9·4	9·0	9·6	9·2	...	1·2	0·4
24	...	0·2	0·2	...	**10·0**	7·0	10·0	7·4	9·4	0·2	1·4	3·4
25	0·2	...	0·2	...	10·0	6·8	10·0	7·0	5·2	0·2	...	...
26	0·2	...	1·8	3·0	3·8	8·4	10·0	7·0	5·6	...	...	0·6
27	...	0·8	0·8	5·0	1·2	6·2	10·0	8·4	7·8	...	...	...
28	...	...	0·8	1·4	1·6	6·8	8·6	7·8	6·2	5·0	...	...
29	...		0·2	2·2	2·4	7·6	10·0	6·8	3·6	3·2	2·6	...
30	0·8		0·8	3·0	3·6	8·6	10·0	9·8	5·2	5·0	4·2	...
31	0·2		0·8		4·4		9·6	10·0		1·0		...
Monthly Mean.	2·4	0·1	0·6	1·4	3·7	6·7	9·2	8·3	7·2	4·0	1·5	0·7
Annual Variation ...	−1·4	−3·7	−3·2	−2·4	−0·1	+2·9	+5·4	+4·5	+3·4	+0·2	−2·3	−3·1

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December ... ... 1·1

Mean of the months from May to October ... ... 6·5

Mean for the year ... ... 13·8

Rainfall, 1903.

TABLE XII.—*Total Fall of Rain (in inches) as measured by Newman's Gauge, placed 4½ feet above the ground.*

1903. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.		in.		in.	in.	in.	in.	in.	in.		
1	...	...	...	...	...	...	0·67	1·38	0·43	0·08	..	...
2	...	...	...	...	...	...	0·10	0·75	0·53	3·36	...	...
3	...	...	...	...	...	...	0·58	0·56	0·17	1·93	...	...
4	...	...	...	...	...	...	...	0·79	...	0·02	...	...
5	...	...	...	...	...	...	0·12	0·07	0·13	...	...	...
6	...	...	...	...	...	...	0·17	0·18	0·09	...	...	...
7	...	..	...	...	...	...	0·01	0·08	0·04	...	...	...
8	...	...	...	...	...	...	0·05	...	0·08	0·05	...	...
9	...	..	...	...	...	...	0·94	0·55	0·14	0·47	...	...
10	...	...	...	...	...	...	0·83	0·06	0·31	...	...	...
11	...	...	...	...	...	0·02	0·67	0·03	0·32	...	...	...
12	...	...	...	0·17	...	1·09	3·02	...	0·02	...	...	...
13	...	...	...	...	...	...	0·03	1·19	...	...	...	...
14	...	...	...	...	...	...	3·17	0·97	0·10	...	...	...
15	...	...	...	...	...	...	3·04	1·83	0·02	0·02	...	...
16	...	...	...	...	...	...	0·64	1·09	...	1·33	...	...
17	...	...	...	...	..	...	0·69	1·97	0·40	0·25	...	...
18	...	...	...	...	...	...	1·45	0 53	0·09	0·73	...	...
19	...	...	...	...	...	...	3·51	0·67	1·63	0·50	...	...
20	...	...	...	...	...	0·74	...	1·51	6·03	0·07	...	...
21	...	..	...	...	...	...	0·08	0·50	1·91	0·58	0·16	...
22	...	...	...	...	...	...	0·98	0·67	0·30	0·15	0·05	...
23	...	...	...	...	...	...	0·68	2·05	0·10	0·05	1·18	...
24	...	...	...	...	...	...	2·13	0·01	0·63	0·17	0·71	...
25	...	..	...	...	...	...	3·18	0·26	0·81	0·80	...	...
26	...	..	...	...	..	...	...	0·58	0·18	0·64	...	...
27	...	...	...	...	...	...	...	0·08	...	1·68	0·09	...
28	...	..	...	...	...	...	...	0·13	0·05	0·17	0·45	...
29	...	..	...		...	...	..	0·70	0·88	0·02	0·02	...
30	...	..	...		...	...	...	1·13	1·27	...	...	...
31	...	...	...		...		...		1·77	1·25	...	...
Monthly Total.	...	...	0·17	...	7·79	19·75	24·82	18·23	7·82	5·91	...	...
Number of rainy days.	...	...	1	...	6	19	29	26	24	6	...	...

Total fall of rain in the year ... ... 84.49 inches.
Total number of rainy days in the year ... ... 1·11
The greatest daily fall of rain in the year (that of 20th August) was ... ... 6·03 inches.

No rain fell in the months of January, February, April, November and December, nor on any of the days left blank in the above table.

TABLE XIII.—Five-day Means, 1903.

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1	29·990	74·2	0.650	0·201	...	2·3 N.	1·3 E.	38	29·620	82·8	**0·958**	0·165	1·29	10·1 S.	1·1 E.
2	30·010	77·0	·714	·217	...	4·9 N.	0·2 W.	39	**·528**	80·4	·928	·109	6·68	6·8 S.	13·1 W.
3	29·935	73·5	·574	·255	...	6·1 N.	1·3 W.	40	·566	79·9	·901	·121	·609	4·4 S.	17·1 W.
4	·936	71·4	·497	·278	...	8·8 N.	2·1 W.	41	·646	80·0	·919	·108	4·45	1·6 S.	17·2 W.
5	·953	74·2	·635	·215	...	7·1 N.	2·5 W.	42	·587	80·6	·916	·128	1·92	0·9 S.	**20·8 W.**
6	·940	**69·8**	·457	·277	...	9·6 N.	2·7 W.	43	·612	78·9	·906	**·081**	5·73	1·6 S.	16·3 W.
7	·997	71·0	·481	·283	...	9·1 N.	2·5 W.	44	·702	80·8	·901	·149	1·12	2·6 S.	15·3 W.
8	**30·012**	71·5	**·438**	·346	...	**10·6 N.**	0·6 W.	45	·745	81·3	·878	·190	0·64	2·1 S.	9·7 W.
9	29·992	72·5	·579	·225	...	7·6 N.	3·8 W.	46	·724	81·7	·902	·183	0·61	0·6 S.	8·1 W.
10	·980	71·3	·575	·195	...	5·6 N.	3·5 W.	47	·703	79·1	·885	·110	8·44	1·8 N.	11·4 W.
11	·979	75·5	·634	·254	...	7·0 N.	3·5 W.	48	·723	80·0	·892	·133	3·46	2·8 S.	13·8 W.
12	·899	77·4	·719	·225	...	8·0 N.	5·6 W.	49	·700	79·8	·887	·131	2·23	2·1 N.	7·7 W.
13	·897	73·7	·637	·197	...	7·7 N.	4·9 W.	50	·773	80·9	·890	·166	0·43	0·4 N.	9·8 W.
14	·870	74·1	·560	·287	...	5·7 N.	3·6 W.	51	·757	81·0	·902	·158	0·87	2·4 S.	10·1 W.
15	·873	74·8	·586	·281	0·17	9·8 N.	5·3 W.	52	·726	82·0	·930	·164	1·60	1·6 N.	4·9 W.
16	·873	75·3	·686	·195	...	5·0 N.	4·1 W.	53	·764	79·6	·880	·132	1·51	4·7 S.	4·2 W.
17	·889	77·0	·752	·180	...	4·2 N.	5·8 W.	54	·817	80·1	·890	·141	1·98	1·7 N.	2·4 W.
18	·879	78·5	·777	·200	...	8·3 N.	7·3 W.	55	·735	80·9	·904	·152	3·91	3·8 N.	5·0 W.
19	·856	77·3	·601	·343	...	9·0 N.	4·9 W.	56	·762	80·6	·901	·146	1·93	2·8 N.	4·5 W.
20	·850	78·7	·772	·214	...	1·8 S.	3·9 W.	57	·829	80·0	·866	·161	0·52	4·5 S.	1·4 W.
21	·826	81·1	·767	·299	...	7·0 N.	5·0 W.	58	·795	82·3	·908	·200	...	3·7 N.	1·7 W.
22	·811	82·2	·895	·208	...	3·1 S.	4·0 W.	59	·803	82·5	·851	·263	...	4·2 N.	1·0 W.
23	·756	83·3	·805	·342	...	7·9 N.	6·7 W.	60	·791	81·1	·751	·318	...	5·5 N.	0·9 E.
24	·765	83·8	·878	·282	...	3·6 N.	6·2 W.	61	·842	79·5	·723	·289	...	5·1 N.	0·8 E.
25	·807	83·9	·885	·278	...	3·2 N.	6·2 W.	62	·877	81·2	·876	·190	...	0·1 S.	1·8 W.
26	·775	83·9	·901	·265	...	0·7 N.	6·2 W.	63	·896	79·5	·856	**·357**	...	8·3 N.	0·1 E.
27	·772	83·6	·880	·273	...	2·8 N.	6·5 W.	64	·883	77·3	·678	·263	...	4·9 N.	1·3 W.
28	·784	84·2	·872	·306	0·74	2·0 N.	6·6 W.	65	·940	76·5	·648	·272	...	5·4 N.	1·5 E.
29	·652	81·0	·905	·155	7·05	3·6 S.	**5·0 E.**	66	·912	75·1	·654	·234	...	3·4 N.	1·2 E.
30	·753	82·8	·911	·211	...	2·0 S.	4·2 W.	67	·840	77·1	·729	·207	...	4·6 N.	0·7 W.
31	·771	84·0	·897	·270	...	0·5 S.	5·0 W.	68	·908	78·1	·650	·319	...	5·9 N.	3·8 E.
32	·703	**85·3**	·941	·276	...	0·3 N.	5·3 W.	69	·904	75·7	·658	·235	...	3·6 N.	1·2 E.
33	·626	84·3	·947	·236	4·31	4·1 S.	0·0	70	·916	74·1	·571	·278	...	5·1 N.	0·3 W.
34	·681	80·8	·944	·110	**9·33**	**14·6 S.**	1·4 E.	71	·963	75·4	·589	·299	...	5·4 N.	1·5 E.
35	·675	81·4	·938	·136	3·23	5·1 S.	7·1 W.	72	·946	73·6	·574	·261	...	6·4 N.	1·2 W.
36	·649	82·0	·955	·138	1·75	7·7 S.	3·3 W.	73	·934	71·3	·499	·279	...	8·1 N.	0·1 E.
37	·681	82·2	·953	·148	2·48	5·0 S.	2·0 W.								

* Five-day sums, *not means*.

TABLE I.—Barometric Pressure, 1904.

Height of Barometer above mean Sea-level=37 feet.

1904.	MONTH.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1 ...	29·930	29·905	29·867	29·798	29·757	**29·770**	29·621	29·644	29·792	29·856	29·897	29·978
2 ...	·924	·945	·826	·816	·781	·747	·587	·652	·787	·878	·881	·979
3 ...	·927	**·967**	·813	·801	·791	·747	·548	·670	·792	**·867**	**·877**	·970
4 ...	·956	·934	·853	·761	·787	·726	**·487**	**·639**	·797	·839	·911	·981
5 ...	·969	·902	·856	·680	·771	·727	·567	·641	·819	·823	·913	·988
6 ...	·962	·924	·875	**·677**	·762	·704	·596	·662	·841	·837	·909	·970
7 ...	30·007	·945	·917	·723	·788	·686	·616	·684	·829	·856	·918	·971
8 ...	**·047**	·897	**·945**	·777	·802	·674	·647	·695	·806	·828	·924	·960
9 ...	·034	·857	·943	·762	·791	·612	·684	·675	·801	·804	·915	·911
10 ...	·001	·896	·897	·759	·759	·591	·670	·679	·782	·796	·924	·858
11 ...	29·995	·934	·876	·764	·740	·604	·675	·724	·761	·814	·937	**·850**
12 ...	·941	·932	·868	·806	·730	·649	·725	·720	·733	·834	·945	·882
13 ...	·921	·861	·867	·832	·745	·674	·716	·707	·716	·800	·940	·901
14 ...	·938	**·832**	·855	·834	·755	·697	·678	·705	**·702**	·751	·953	·918
15 ...	·956	·857	·845	·839	·779	·720	·684	·738	·726	·738	·961	·916
16 ...	·921	·867	·820	·823	·812	·718	·695	·786	·757	**·721**	·987	·933
17 ...	·920	·891	·790	·814	·791	·691	·688	·756	·800	·727	·995	·972
18 ...	·929	·894	·804	·816	·770	·639	·662	·732	·817	·771	30·012	·938
19 ...	·925	·898	·842	·849	·721	·584	·650	·743	·822	·831	·030	·883
20 ...	**·871**	·904	·847	**·857**	·687	**·580**	·656	·770	·822	·865	**·034**	·901
21 ...	·873	·919	·825	·822	·730	·644	·660	·790	·815	·882	·013	·927
22 ...	·898	·949	·868	·811	·759	·701	·674	·790	·831	·832	29·967	·933
23 ...	·930	·931	·861	·779	·702	·717	·688	·776	·880	·817	·936	·951
24 ...	·919	·943	·876	·778	**·639**	·678	·712	·791	·913	·832	·981	30·008
25 ...	·953	·937	·891	·805	·639	·653	·732	·790	·919	·831	·997	·053
26 ...	·984	·888	·864	·814	·657	·674	**·773**	·762	**·932**	·859	·983	·035
27 ...	·947	·834	·796	·828	·725	·726	·747	·783	·929	·869	·998	·030
28 ...	·884	·853	·799	·785	·759	·748	·705	**·837**	·904	·868	30·001	·041
29 ...	·931	·892	·817	·760	·777	·712	·688	·836	·870	·867	·005	·038
30 ...	·930		·761	·765	·808	·666	·709	·787	·859	**·890**	29·996	·052
31 ...	·874		**·752**		**·832**		·672	·786		·890		**·087**
Monthly Mean.	29·942	29·903	29·849	29·791	29·753	29·682	**29·665**	29·734	29·818	29·828	29·958	**29·962**
Annual Variation ...	+·118	+·079	+·025	—·033	—·071	—·142	—·159	—·090	—·006	+·004	+·134	+·138

	in.
Annual mean	29·824
The greatest mean daily Barometric pressure in the year (that of 31st December) was ...	30·087
The least do. do. (that of 4th July) was ...	29·487
Difference=	0·600

TABLE II.—Temperature of the Air, 1904.

1904. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1 ...	73·4	**73·6**	76·1	82·8	**82·8**	85·1	**83·2**	**81·6**	81·1	82·3	**83·7**	76·0
2 ...	74·6	75·1	78·2	81·6	83·9	85·6	82·8	79·6	81·3	82·5	81·9	76·6
3 ...	76·1	74·9	79·2	81·2	84·2	85·4	**78·8**	79·7	81·4	83·2	80·9	**76·8**
4 ...	76·0	75·3	77·9	81·4	84·0	86·0	78·8	78·9	81·3	**84·3**	81·3	76·6
5 ...	74·4	74·4	76·3	82·0	84·1	86·4	80·0	**78·7**	81·6	82·7	79·3	76·1
6 ...	75·7	75·4	76·9	81·9	84·7	86·4	80·8	81·0	81·5	83·2	78·5	75·4
7 ...	**77·5**	76·3	77·2	82·9	84·5	**86·7**	82·0	80·8	81·3	82·5	77·7	75·1
8 ...	75·6	75·9	**75·1**	81·5	84·4	80·0	82·2	80·4	81·4	82·1	77·4	75·3
9 ...	75·5	76·6	75·5	81·0	84·6	**79·6**	81·8	80·2	81·4	82·3	77·8	74·7
10 ...	74·7	76·7	75·5	81·6	84·0	81·1	81·9	80·6	81·0	82·9	77·1	74·1
11 ...	74·5	78·7	75·2	82·0	84·3	80·5	82·0	80·9	79·6	79·9	77·0	74·2
12 ...	75·5	78·8	76·2	82·2	84·4	84·2	82·5	80·7	79·6	80·2	78·0	74·8
13 ...	74·7	78·5	78·2	82·5	84·3	84·0	81·7	80·3	79·3	79·9	78·3	76·4
14 ...	73·7	77·2	78·0	81·5	85·2	80·8	80·5	81·1	**78·5**	80·7	77·8	75·5
15 ...	73·2	77·1	78·5	81·8	85·4	80·2	81·5	81·0	79·7	81·1	77·9	76·7
16 ...	73·0	76·2	79·7	81·5	85·4	81·8	82·0	80·1	79·9	81·7	81·2	75·4
17 ...	73·3	75·7	79·7	**80·5**	84·7	81·1	82·4	80·8	79·4	83·5	80·6	74·5
18 ...	72·6	75·6	80·2	80·5	84·4	80·3	81·4	80·7	80·1	83·6	80·1	**73·8**
19 ...	**69·0**	74·5	79·9	80·5	84·1	82·2	81·2	81·4	81·2	83·8	78·8	75·4
20 ...	72·5	74·8	79·7	81·2	84·9	82·9	81·7	81·2	81·1	83·7	79·6	76·5
21 ...	75·6	75·4	79·1	81·4	84·9	82·9	82·4	81·4	81·8	**79·8**	77·8	75·4
22 ...	76·9	75·2	78·8	82·6	84·9	83·5	80·9	80·6	81·4	81·3	77·2	75·9
23 ...	75·8	74·5	79·5	82·4	85·2	83·0	81·3	81·2	80·4	82·0	75·9	76·6
24 ...	75·5	75·9	78·9	82·7	84·7	83·4	82·2	80·6	80·1	82·4	**75·2**	76·6
25 ...	76·5	**79·4**	78·0	82·6	85·0	81·4	81·4	79·5	79·9	81·8	76·3	75·6
26 ...	77·4	78·8	79·0	82·5	85·1	83·7	81·5	80·8	80·4	81·8	76·6	74·7
27 ...	76·9	78·2	81·9	83·4	85·2	84·0	81·2	80·9	**81·9**	82·5	76·3	74·9
28 ...	75·9	77·4	81·5	**83·8**	85·3	83·4	81·7	81·1	81·8	81·7	76·7	74·4
29 ...	74·5	76·4	83·0	83·5	**85·7**	83·3	82·2	81·1	81·4	80·2	76·8	73·9
30 ...	74·2		**84·9**	83·1	85·6	82·3	82·2	80·6	81·3	81·4	76·3	74·0
31 ...	73·5		82·9		85·4		82·1	80·2		83·3		75·4
Monthly Mean	**74·8**	76·3	78·9	82·0	**84·7**	83·0	81·6	80·6	80·7	82·1	78·3	75·4
Annual Variation ...	—5·0	—3·5	—1·1	+2·2	+4·9	+3·2	+1·8	+0·8	+0·9	+2·3	—1·5	—4·4

		in.
Annual mean		79·8
The greatest mean daily temperature of the air in the year (that of 7th June) was ...		86·7
The least do. do. (that of 19th January) was ...		69·0
	Difference=	17·7

TABLE III.—Pressure of Vapour, 1904.

1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1 ...	0·563	**0·560**	0·645	0·879	0·910	0·898	0·931	0·892	0·850	0·896	**0·816**	0·615
2 ...	·652	·579	·709	·859	·910	·889	**·951**	·881	·849	·862	·812	·593
3 ...	·731	·627	·741	·829	·921	**·883**	·896	·888	·847	·851	·811	·566
4 ...	·663	·588	·756	·851	·919	·912	·898	·881	·839	·768	·742	·548
5 ...	·594	·569	·671	·829	·904	·917	·917	·878	·837	·857	·714	·552
6 ...	·635	·572	·711	·843	·891	·913	·918	**·901**	·819	·869	·725	·591
7 ...	·617	·660	·682	·857	·872	·954	·940	·894	·828	·903	·661	·619
8 ...	·555	·649	·587	·846	·880	·927	·932	·886	·843	·919	·688	·632
9 ...	·493	·618	·552	·824	·886	·921	·918	·872	·839	**·942**	·714	·622
10 ...	·542	·645	**·505**	·809	·890	·928	·916	·895	·854	·938	·716	·621
11 ...	·567	·613	·572	·835	·901	·938	·934	·886	·877	·881	·744	·635
12 ...	·590	·614	·700	·778	·874	**·984**	·921	·876	·874	·883	·783	·678
13 ...	·610	·654	·764	·756	·837	·965	·884	·868	·857	·840	·723	·688
14 ...	·607	·688	·730	·807	·886	·923	·884	·889	·858	·850	·731	·682
15 ...	·573	·666	·724	·802	·914	·930	·889	·890	·848	·882	·664	·631
16 ...	·610	·678	·760	·768	·920	·936	·912	·857	·876	·899	·719	·647
17 ...	·609	·660	·736	·719	·906	·918	·897	·877	·878	·941	·714	·549
18 ...	·579	·644	·723	·718	·866	·919	·890	·853	·886	·892	·673	**·521**
19 ...	**·421**	·679	·775	**·691**	·920	·973	·906	·865	·879	·797	·619	·660
20 ...	·562	·672	·678	·734	·937	·959	·906	·854	·864	·929	·603	**·749**
21 ...	·628	·652	·715	·821	·915	·958	·914	·850	·858	·853	·547	·738
22 ...	·700	·664	·743	·892	·914	·956	·909	·857	·816	·871	**·522**	·683
23 ...	**·737**	·642	·728	·872	**·960**	·944	·905	·857	·809	·892	·573	·643
24 ...	·695	·662	·696	·873	·922	·944	·885	·855	**·805**	·910	·594	·651
25 ...	·710	·660	·716	·873	·897	·935	**·882**	·851	·820	·834	·595	·626
26 ...	·681	·629	·813	·889	·868	·951	·893	·857	·848	·839	·609	·625
27 ...	·648	**·717**	·790	·901	·838	·949	·877	·872	·890	·909	·615	·591
28 ...	·625	·692	·866	·855	**·823**	·922	·885	·843	**·898**	·886	·632	·560
29 ...	·620	·684	·803	**·910**	·847	·926	·894	·841	·865	·793	·651	·567
30 ...	·618		·752	·902	·885	·911	·902	**·836**	·880	**·758**	·658	·569
31 ...	·546		**·874**		·874		·899	·857		·840		·597
Monthly Mean.	**0·612**	0·643	0·717	0·827	0·893	**0·933**	0·906	0·870	0·853	0·870	0·679	0·621
Annual Variation ...	—·173	—·142	—·068	+·042	+·108	+·148	+·121	+·085	+·068	+·085	—·106	—·164

	in.
Annual mean	0·785
The greatest mean daily pressure of vapour in the year (that of 12th June) was	0·984
The least do. do. (that of 19th January) was ...	0·421
Difference=	0·563

TABLE IV.—Additional Capacity of the Air, 1904.

1904. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1 ...	0·263	0·275	0·259	0·244	**0·220**	0·310	0·205	0·186	0·212	0·212	0·345	0·288
2 ...	·208	·301	·256	**·222**	·255	·341	·171	·131	·221	·254	·281	·331
3 ...	·173	·247	·256	·242	·254	·337	·090	·126	·225	·289	·246	·366
4 ...	·238	·296	·202	·226	·250	·334	**·087**	·108	·230	**·415**	·335	**·377**
5 ...	·260	·288	·239	·266	·267	·343	·106	**·103**	·242	·267	·294	·355
6 ...	·260	·321	·221	·248	·306	**·350**	·132	·159	**·258**	·274	·254	·299
7 ...	·337	·254	·253	·271	·319	·321	·152	·158	·241	·212	·295	·257
8 ...	·338	·253	·285	·231	·303	·097	·170	·150	·230	·181	·259	·253
9 ...	**·397**	·307	·336	·235	·306	**083**	·168	·159	·232	·166	·246	·244
10 ..	·323	·279	·382	·271	·279	·134	·175	·150	·206	·190	·221	·227
11 ...	·294	·379	·303	·261	·280	·104	·160	·170	·132	**·143**	·188	·217
12 ...	·299	**·381**	·207	·325	·311	·191	·192	·172	·137	·148	**·181**	·189
13 ...	·254	·330	·207	**·359**	·345	·202	·198	·168	·144	·180	·252	·226
14 ..	·226	·252	·234	·271	·331	·127	·156	·172	**·117**	·198	·225	·202
15 ..	·248	·271	·257	·286	·308	·101	·185	·168	·165	·181	·298	·290
16 ...	·205	·231	·257	·309	·304	·154	·181	·172	·147	·188	·359	·236
17 ...	·215	·230	·281	·325	·287	·144	·210	·172	·128	·210	·333	·308
18 ...	·224	·245	·303	·329	·317	·115	·183	·196	·143	·266	·360	·317
19 ...	·291	**·179**	·251	·352	·254	·127	·159	·207	·185	·365	·367	·226
20 ...	·246	·196	·341	·336	·266	·166	·176	·214	·197	·225	·416	·168
21 ...	·265	·231	·284	·258	·289	·165	·195	**·224**	·227	·169	·413	**·145**
22 ...	·230	·213	·245	·224	·288	·191	·146	·187	·257	·202	**·419**	·219
23 ...	**·160**	·214	·286	·238	·253	·187	·164	·207	·231	·204	·327	·277
24 ...	·190	·230	·299	·246	·273	·203	**·216**	·190	·226	·200	·286	·272
25 ..	·209	·351	·243	·249	·311	·138	·193	·156	·203	·255	·323	·266
26 ...	·265	·358	**·182**	·223	·344	·203	·183	·196	·193	·251	·312	·242
27 ...	·282	·252	·302	·242	·376	·219	·188	·186	·202	·206	·296	·281
28 ...	·273	·251	·213	·308	**·395**	·222	·199	·220	·189	·198	·292	·298
29 ...	·238	·229	·329	·239	·387	·214	·208	·222	·208	·242	·276	·276
30 ...	·232		**·458**	·236	·345	·191	·200	·210	·190	·318	·254	·278
31 ...	·287		·255		·349		·199	·176		·302		·288
Monthly Mean.	0·256	0·271	0·272	0·269	**0·302**	0·201	**0·172**	0·175	0·197	0·229	0·298	0·265
Annual Variation ...	+·014	+·029	+·030	+·027	+·060	—·041	—·070	—·067	—·045	—·013	+·056	+·023

	in.
Annual mean	0·242
The greatest mean daily additional capacity of the air in the year (that of 30th March) was ...	0·458
The least do. do. (that of 4th July) was ...	0·087
Difference =	0·371

Maxima and Minima of different Meteorological Elements, 1904.

TABLE V.—*In which are collected the individual observations in each month of the year, which showed the greatest and the least values of the following elements, viz., Height of Barometer, corrected for Temperature; Temperature of Air; Pressure of Vapour; and Additional Capacity of Air.*

1904.	HEIGHT OF BAROMETER.			TEMPERATURE OF AIR.			PRESSURE OF VAPOUR.			ADDITIONAL CAPACITY.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in.	in.	in.	°	°	°	in	in.	in.	in.	in.	in.
January ..	30·140	29·811	0·329	86·8	62·8	24·0	·807	·302	0·505	0·841	0·059	0·782
February ...	·051	·775	·276	88·8	68·2	20·6	·840	·368	·472	·882	·068	·814
March ...	·018	·672	·346	91·7	70·3	21·4	·957	·440	·517	·747	·057	·690
April ...	29·915	·622	·293	88·5	75·8	12·7	·979	·648	·331	·649	·081	·568
May ...	·883	·585	·298	90·3	78·6	11·7	·990	·770	·220	·609	·113	·496
June ...	·833	·524	·309	90·9	76·1	14·8	1·022	·760	·262	·530	·005	·525
July ...	·823	·454	·369	86·0	76·1	9·9	1·001	·780	·221	·315	·037	·278
August ...	·882	·598	·284	85·2	75·2	10·0	·951	·757	·194	·364	·045	·319
September .	·987	·644	·343	86·9	76·1	10·8	·988	·765	·223	·375	·055	·320
October ...	·961	·660	·301	91·4	75·2	16·2	·996	·591	·405	·870	·059	·811
November .	30·103	·818	·285	91·1	70·4	20·7	·951	·382	·569	·876	·061	·815
December .	·159	·797	·362	86·2	67·1	19·1	·809	·340	·469	·845	·052	·793
Year ...	30·159	29·454	0·705	91·7	62·8	28·9	1·022	0·302	0·720	0·882	0·005	0·877

Rainfall, 1904.

TABLE VI.—*Total fall of rain (in inches) as measured by F. Chambers's Self-registering Gauge, the funnel of which is 28 feet above the ground.*

1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
			in.		in.	in.	in.	in.	in.	in.		
1	...	...	...	...	...	0·05	0·06	0·02	0·03	...	...	...
2	...	...	...	...	...	...	0·08	0·50	...	...	...	...
3	...	...	...	...	...	...	1·52	**1·52**	...	...	...	...
4	...	...	...	...	**0·06**	...	...	**2·67**	0·87	...	...	...
5	...	...	...	...	...	...	...	0·98	0·39	0·01	...	...
6	...	...	...	...	...	...	...	1·89	0·01	...	...	...
7	...	...	...	...	...	...	...	0·16	0·04	...	...	...
8	...	...	...	...	...	...	2·04	0·01	0·01	0·01	...	...
9	...	...	...	...	...	...	1·54	0·10	0·14	...	...	...
10	...	...	...	...	...	...	0·13	0·01	0·25	0·04	0·15	...
11	...	...	...	...	...	...	**3·24**	0·15	...	**0·72**	0·11	...
12	...	...	...	...	...	...	0·10	...	0·03	0·05	0·01	...
13	...	...	...	...	...	...	0·11	0·13	0·05	0·08	...	...
14	...	...	...	...	...	...	0·62	0·39	...	0·69	...	...
15	...	...	...	...	...	...	1·19	0·02	0·04	...	...	...
16	...	...	...	...	...	...	0·08	0·09	0·10	0·10	...	...
17	...	...	...	...	...	...	0·69	...	0·01	...	..	...
18	...	...	...	...	...	...	0·82	0·19	0·01	...	...	...
19	...	...	...	...	...	...	1·90	0·22	...	...	...	...
20	...	...	...	...	...	...	0·12	...	0·01	...	...	...
21	...	...	...	...	...	...	0·05	0·03	...	...	**0·23**	...
22	...	...	...	...	...	..	0·09	0·32	0·15	...	...	...
23	...	...	...	...	...	...	0·40	0·07	...	0·03	...	...
24	...	...	...	...	...	...	0·16	...	0·19	...	...	...
25	...	...	...	...	...	...	0·35	0·20	1·01	...	...	...
26	...	...	...	...	...	...	0·01	0·30	...	...	...	...
27	...	...	...	...	...	..	0·02	0·25	0·02	...	...	...
28	...	...	...	...	...	...	0·04	0·03	...	...	...	...
29	...	...	...	...	...	...	0·11	...	...	...	...	...
30	...	...	...	...	...	...	0·64	0·07	0·06	...	...	...
31	...	...	...	...	0·01			...	0·26		...	...
Monthly Total.	...	...	0·06	...	0·01	**14·50**	9·94	5·69	1·76	0·50	...	...
Number of rainy days.	...	...	1	...	1	24	**25**	23	10	4	...	...

Total fall of rain in the year ... ... 32·46 inches.

Total number of rainy days in the year 88

The greatest daily fall of rain in the year (that of 11th June) was ... ... 3·24 inches.

No rain fell in the months of January, February, April, November and December, nor on any of the days left blank in the above table.

Mean Daily Velocities of the North and East Components of the Wind, 1904.

TABLE VII.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each day of the year 1904.*

In Miles per Hour.

1904. Date.	MONTH.																							
	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1 ...	6·5 N	3·2 W	7·2 N	3·0 W	3·4 N	4·7 W	2·6 S	2·6 W	1·3 S	5·2 W	0·8 S	8·2 W	4·0 S	15·2 W	0·0	14·7 W	4·4 S	13·6 W	8·8 N	2·7 W	0·0 N	1·2 E	4·6 N	1·5 E
2 ...	5·1 N	2·7 W	3·1 N	0·2 W	4·3 S	0·8 W	0·3 S	3·4 W	4·3 S	5·1 W	0·5 S	9·0 W	0·0	15·3 W	1·1 S	10·3 W	4·4 S	11·7 W	7·4 N	2·1 W	2·6 N	2·4 W	5·6 N	3·1 E
3 ...	4·5 N	2·6 W	4·5 N	1·1 W	9·9 S	0·1 E	2·8 N	6·4 W	4·0 S	5·1 W	0·1 N	8·0 W	0·5 S	10·8 W	1·6 S	14·7 W	1·4 S	12·0 W	5·0 N	1·2 W	4·3 N	1·0 W	6·6 N	5·2 E
4 ...	8·5 N	3·5 W	7·3 N	3·2 W	2·5 S	1·9 W	5·3 N	7·7 W	3·3 S	4·3 W	0·4 S	8·2 W	0·2 N	17·8 W	3·2 S	17·6 W	0·0	12·2 W	6·1 N	1·4 E	5·4 N	0·1 W	4·0 N	5·1 E
5 ...	9·2 N	4·1 W	7·4 N	2·8 W	6·6 N	2·5 W	4·5 N	7·4 W	4·0 S	4·0 W	1·8 S	6·6 W	7·3 S	20·8 W	0·7 S	17·1 W	1·5 N	10·0 W	4·5 N	0·7 W	4·2 N	0·9 E	3·1 N	4·6 E
6 ...	6·4 N	0·9 W	6·5 N	3·5 W	3·1 N	3·5 W	2·2 S	4·9 W	4·6 S	5·8 W	2·9 S	6·4 W	6·5 S	18·4 W	1·6 S	17·7 W	0·6 N	9·9 W	5·8 N	2·2 W	5·4 N	0·0	7·8 N	4·6 E
7 ...	4·9 N	5·6 E	1·6 N	0·1 W	7·8 N	4·0 W	4·9 S	4·1 W	1·3 S	6·3 W	6·4 S	3·4 W	4·5 S	16·7 W	4·2 S	17·4 W	4·0 N	13·9 W	2·9 N	0·9 W	2·7 N	0·7 E	3·5 N	0·2 W
8 ...	5·8 N	2·7 E	3·4 N	0·0	10·3 N	5·3 W	0·1 S	6·9 W	1·7 N	8·1 W	19·1 S	4·1 E	4·2 S	13·3 W	5·7 S	18·2 W	3·7 N	11·1 W	1·1 S	0·4 W	3·3 N	0·9 E	6·7 N	4·6 E
9 ...	5·4 N	5·3 E	2·1 N	1·7 E	13·0 N	5·8 W	2·3 N	7·2 W	4·3 N	7·9 W	11·5 S	1·2 E	4·7 S	14·8 W	6·9 S	16·6 W	1·3 N	8·7 W	2·2 S	1·4 W	3·5 N	2·1 E	5·3 N	3·0 E
10 ...	5·9 N	1·6 E	2·6 N	0·4 W	9·3 N	5·9 W	2·6 N	6·4 W	5·0 N	8·6 W	12·4 S	0·1 W	4·3 S	14·9 W	7·2 S	19·2 W	1·2 N	9·0 W	4·8 S	0·2 W	4·4 N	0·1 W	6·2 N	0·8 E
11 ...	6·3 N	0·8 E	5·1 N	1·4 E	5·1 N	4·1 W	4·2 N	6·1 W	4·6 N	9·4 W	7·9 S	13·2 W	5·1 S	11·8 W	5·8 S	19·2 W	4·9 N	8·0 W	1·5 N	2·8 E	5·6 N	2·7 W	5·8 N	0·1 E
12 ...	4·2 N	0·5 E	5·8 N	1·0 E	7·5 N	5·5 W	6·4 N	8·1 W	3·2 N	7·5 W	6·0 S	15·2 W	5·3 S	12·7 W	4·6 S	14·4 W	4·9 N	14·3 W	5·0 S	2·8 E	6·0 N	0·4 W	3·5 N	1·3 E
13 ...	3·1 N	0·3 W	3·8 N	0·2 E	7·1 N	6·2 W	2·5 N	6·4 W	1·4 S	6·3 W	6·5 S	16·7 W	5·3 S	12·4 W	4·1 S	13·1 W	3·5 N	16·7 W	4·3 S	4·7 E	6·2 N	0·5 E	2·9 S	0·4 E
14 ...	5·7 N	3·3 W	5·5 N	2·7 W	6·7 N	4·7 W	0·4 S	6·7 W	3·4 S	5·1 W	1·6 S	12·7 W	4·3 S	13·0 W	4·9 S	11·8 W	0·0	21·1 W	1·8 S	1·4 E	5·1 N	2·7 W	8·0 N	2·9 W
15 ...	6·2 N	2·3 W	4·4 N	4·9 W	5·6 N	7·0 W	0·2 S	4·6 W	2·7 S	6·1 W	2·7 S	1·1 W	4·9 S	11·9 W	4·4 S	12·0 W	3·9 S	12·3 W	3·3 N	1·7 E	5·9 N	2·8 W	11·3 N	1·4 W
16 ...	9·5 N	3·4 W	3·9 N	4·9 W	8·8 N	7·8 W	0·3 S	6·5 W	1·2 S	6·1 W	3·8 S	1·2 E	0·8 S	14·6 W	3·0 S	12·2 W	8·2 S	3·0 W	3·4 N	2·1 W	4·0 N	4·3 E	7·2 N	3·6 W
17 ...	8·0 N	4·2 W	3·1 N	4·1 W	12·5 N	7·8 W	0·2 S	5·4 W	2·5 N	7·7 W	8·2 S	0·7 W	0·0	19·3 W	5·3 S	12·7 W	10·8 S	1·9 E	3·8 N	4·0 W	2·8 N	0·4 E	11·1 N	3·9 W
18 ...	11·5 N	2·4 W	0·0	1·7 W	9·7 N	6·6 W	0·1 S	6·0 W	5·1 N	8·4 W	0·4 N	8·1 W	2·4 S	18·8 W	5·2 S	13·2 W	3·0 S	2·4 W	3·7 N	0·0	5·2 N	0·2 W	8·4 N	2·2 W
19 ...	13·3 N	4·3 W	4·0 N	4·0 W	1·0 N	7·2 W	1·3 S	5·7 W	1·9 N	7·0 W	0·5 N	17·3 W	0·6 S	20·0 W	5·2 S	11·5 W	5·6 N	7·3 W	5·0 N	0·2 E	5·3 N	0·7 W	2·8 N	0·0
20 ...	7·8 N	0·8 W	5·9 N	3·9 W	6·7 N	6·7 W	0·5 N	4·6 W	5·0 N	9·2 W	0·0	20·0 W	0·9 S	18·0 W	2·8 S	12·4 W	4·5 N	5·8 W	2·5 S	2·1 W	8·5 N	5·6 E	0·1 N	0·7 E
21 ...	3·7 N	0·7 W	7·3 N	5·0 W	6·9 N	4·9 W	6·2 N	7·0 W	0·0	8·0 W	0·9 S	19·8 W	0·2 S	15·9 W	0·4 S	13·9 W	4·1 N	6·8 W	4·5 N	1·9 E	7·8 N	1·8 E	5·2 N	1·7 W
22 ...	1·6 N	2·1 E	7·7 N	3·2 W	5·8 N	5·6 W	5·8 N	7·5 W	1·7 N	8·7 W	5·8 S	15·7 W	1·2 S	15·7 W	0·2 N	13·9 W	1·2 N	9·4 W	3·8 N	1·2 W	6·7 N	2·1 E	7·0 N	1·6 W
23 ...	2·4 N	2·7 W	6·6 N	4·2 W	7·7 N	5·9 W	2·9 N	9·2 W	0·6 N	8·1 W	3·9 S	16·1 W	0·7 S	16·2 W	0·0	14·0 W	0·9 S	4·3 W	0·7 S	0·2 W	3·8 N	1·2 E	9·1 N	1·4 W
24 ...	6·6 N	2·8 W	7·7 N	5·0 W	6·4 N	6·8 W	3·3 N	7·3 W	0·6 S	5·2 W	0·4 N	15·4 W	4·9 S	12·6 W	1·2 S	10·3 W	0·0	2·6 W	0·8 S	1·7 W	3·6 N	0·8 E	8·0 N	0·6 E
25 ...	2·5 N	1·1 W	8·9 N	3·3 E	6·5 N	5·7 W	3·0 N	8·1 W	1·9 S	5·4 W	2·1 N	10·1 W	3·3 S	10·6 W	0·7 S	7·7 W	7·9 N	4·1 W	6·4 N	3·8 W	4·7 N	2·9 E	2·5 N	0·3 W
26 ...	5·3 N	0·7 W	6·3 N	1·0 W	7·0 N	6·8 W	10·5 N	8·5 W	1·3 S	6·1 W	2·0 N	17·6 W	4·6 S	11·2 W	3·5 S	8·8 W	6·0 N	0·2 W	2·8 N	1·7 W	2·0 N	2·0 E	5·7 N	0·3 W
27 ...	2·8 N	0·5 W	2·5 N	1·5 W	10·2 N	8·3 W	10·9 N	10·0 W	3·0 S	5·9 W	0·0	17·4 W	5·2 S	12·9 W	3·8 S	2·8 W	1·6 N	0·6 W	2·9 N	0·6 W	2·4 N	2·1 E	6·6 N	0·8 E
28 ...	7·1 N	3·9 W	3·8 N	6·0 W	3·1 S	4·8 W	12·1 N	9·4 W	2·1 S	6·3 W	1·1 S	15·3 W	4·7 S	14·3 W	2·1 S	5·7 W	2·2 S	2·1 W	3·8 N	2·9 W	2·9 N	2·0 E	5·2 N	0·0
29 ...	6·2 N	4·0 W	5·2 N	3·8 W	7·1 N	6·0 W	1·4 N	7·1 W	3·1 S	6·0 W	4·5 S	12·4 W	3·6 S	15·7 W	3·0 S	7·7 W	3·4 N	2·9 W	7·0 N	2·7 W	4·0 N	1·0 E	4·8 N	0·4 W
30 ...	6·6 N	2·7 W			10·7 N	4·3 W	1·2 N	6·6 W	1·6 S	7·8 W	5·7 S	16·1 W	1·4 S	16·6 W	3·7 S	8·5 W	9·8 N	4·5 W	8·0 N	2·7 W	3·0 N	0·3 E	2·2 N	1·8 E
31 ...	8·3 N	5·4 W			6·8 S	3·2 W			2·7 S	6·7 W			0·3 N	17·7 W	1·8 S	13·6 W			4·9 N	2·6 W			2·7 N	1·0 E
Monthly Mean ...	6·2 N	1·4 W	4·9 N	2·2 W	5·4 N	5·2 W	2·5 N	6·6 W	0·4 S	6·7 W	3·6 S	10·1 W	3·1 S	15·2 W	3·1 S	13·0 W	1·0 N	8·0 W	2·7 N	0·7 W	4·4 N	0·7 E	5·4 N	0·6 E
Annual Variation ...	4·3 N	4·2 E	3·0 N	3·4 E	3·5 N	0·4 E	0·6 N	1·0 W	2·3 S	1·1 W	5·5 S	4·5 W	5·0 S	9·6 W	5·0 S	7·4 W	0·9 S	2·4 W	0·8 N	4·9 E	2·5 N	6·3 E	3·5 N	6·2 E

The Velocities of the Mean Components for the year are 1·9 N. and 5·6 W.

Velocity of Wind, 1904.

Robinson Beckley's Anemograph.

TABLE VIII.—*Mean Velocity of the Wind, in miles per hour, without regard to the direction from which it blew, for each Day of Bombay Civil Time; also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	8·0	9·2	8·0	8·9	**5·7**	8·6	16·0	14·7	14·5	**10·3**	**4·9**	7·8
2	7·0	6·7	5·9	8·0	7·1	9·1	15·3	10·9	12·6	8·9	7·7	10·0
3	5·0	7·6	10·8	7·4	7·3	8·0	12·4	15·1	12·3	6·8	7·4	11·9
4	10·1	9·3	8·9	10·2	5·7	8·2	19·4	18·2	12·2	8·7	7·2	10·2
5	11·0	9·4	9·5	9·2	6·1	**6·9**	**22·3**	17·5	10·3	7·4	7·9	10·0
6	8·4	8·5	**5·7**	5·6	7·9	7·1	19·7	18·0	10·0	8·0	8·0	11·2
7	12·2	7·2	9·5	7·5	6·6	7·8	17·6	18·2	14·7	5·9	7·9	7·0
8	10·6	6·3	12·4	7·0	8·7	19·9	14·2	19·3	11·8	**4·8**	7·8	10·1
9	12·9	7·0	15·0	7·7	9·9	14·0	15·7	18·0	9·1	5·6	8·8	8·7
10	9·2	7·7	12·0	7·2	10·5	13·4	15·7	**20·6**	9·3	8·9	7·6	9·4
11	8·9	10·5	9·4	9·5	10·7	16·5	12·9	20·3	10·1	7·4	8·0	8·4
12	7·7	9·5	10·5	12·0	8·6	16·4	23·7	15·3	15·2	6·8	7·5	7·9
13	5·5	**6·1**	10·4	8·1	6·9	18·0	13·5	13·9	17·4	8·6	8·7	5·7
14	8·0	7·9	9·0	6·9	6·3	13·5	13·9	12·8	**21·1**	5·7	7·9	12·2
15	9·1	7·1	10·7	**5·5**	7·1	10·8	12·9	12·8	13·5	8·3	8·3	**13·0**
16	10·7	6·6	13·0	6·6	6·6	9·8	14·8	12·7	9·0	7·7	10·1	9·7
17	9·4	6·2	**15·5**	7·1	8·2	9·8	19·3	13·8	11·5	8·6	7·0	12·9
18	13·7	6·3	12·7	6·2	10·1	9·6	19·2	14·2	7·4	6·9	7·7	10·2
19	**14·5**	7·0	8·8	6·2	8·9	17·4	20·2	12·7	9·6	9·2	8·7	7·2
20	9·6	8·7	10·3	6·7	**11·0**	**20·0**	18·1	13·0	8·9	7·9	**13·3**	7·0
21	6·3	10·1	10·4	10·9	8·0	20·0	15·9	14·0	9·3	9·2	11·8	8·4
22	7·1	10·1	9·2	11·8	9·0	16·8	16·0	13·9	9·6	9·1	10·8	10·0
23	5·1	9·7	11·7	11·0	8·3	16·9	16·4	14·0	**5·9**	6·5	8·6	11·0
24	8·2	10·5	10·5	9·5	5·7	15·5	13·6	10·6	6·8	6·4	8·5	10·8
25	**4·8**	**14·2**	10·3	10·0	6·1	13·5	**11·5**	8·3	10·4	8·5	9·2	6·7
26	7·8	9·3	10·5	15·0	6·5	18·0	12·3	9·5	8·8	4·8	**7·1**	8·3
27	6·6	8·3	13·5	16·0	6·7	17·4	14·0	7·2	6·1	5·9	6·0	9·6
28	9·2	7·9	8·2	**16·5**	6·7	15·5	15·3	**6·6**	7·2	6·0	7·0	9·1
29	8·3	8·6	12·1	8·4	6·8	13·3	16·5	8·3	8·8	8·8	7·8	7·5
30	9·0		13·3	8·1	8·1	17·2	16·9	9·7	11·8	9·4	7·6	**5·6**
31	10·3		13·9		7·5		17·7	13·9		6·6		8·9
Monthly Mean.	8·9	8·4	10·7	9·0	7·7	13·6	**15·9**	13·8	10·8	**7·5**	8·2	9·2
Annual Variation...	—1·4	—1·9	+0·4	—1·3	—2·6	+3·3	+5·6	+3·5	+0·5	—2·8	—2·1	—1·1

	Miles.
The mean velocity for June to August	14·4
The mean velocity for September to May	8·9
The mean velocity for the year	10·3
The greatest monthly mean (that of July)	15·9
The least monthly mean (that of October)	7·5
Difference =	8·4
The greatest mean daily velocity of wind in the year (that of 5th July) was	22·3
The least do. do. do. (that of 25th January) was	4·8
Difference =	17·5

Velocity of Wind, 1904.

Dines' Anemograph.

TABLE VIII*a*.—*Mean Velocity of the Wind, in miles per hour, for each Day of Bombay Civil Time; also the Mean Monthly Velocity, and its Variation from the Mean of the year.*

1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	5·9	6·5	5·7	6·7	4·0	6·1	10·8	10·2	9·8	**7·2**	**4·0**	6·0
2	5·2	4·7	4·8	5·9	5·8	6·5	10·6	7·5	8·7	6·2	5·7	7·3
3	4·3	5·5	8·3	5·4	5·5	5·9	8·6	10·4	8·5	4·8	5·5	8·7
4	7·1	6·7	6·6	7·3	4·0	6·0	13·1	12·5	8·5	6·2	5·5	7·4
5	7·7	7·1	7·1	6·7	4·9	**4·9**	**15·0**	12·3	7·6	5·2	5·8	7·4
6	6·0	6·5	**4·3**	**4·0**	6·1	5·0	13·4	12·3	7·6	5·5	5·7	8·0
7	8·6	5·2	7·2	5·7	4·9	6·2	11·7	12·5	10·9	4·1	5·6	5·1
8	7·6	**4·5**	9·2	5·1	6·6	**14·6**	9·5	13·3	8·6	**3·3**	5·7	7·1
9	9·1	5·1	10·8	5·8	7·2	10·2	10·7	12·4	6·6	3·7	6·5	6·3
10	6·5	5·5	9·1	5·3	7·7	9·6	10·9	**14·0**	6·7	6·5	5·7	6·9
11	6·3	7·5	7·4	6·9	7·8	11·3	9·0	13·5	7·5	5·0	6·0	6·3
12	5·6	6·8	8·0	9·0	6·5	10·9	9·4	10·1	11·2	5·0	5·5	6·0
13	4·2	4·6	7·9	5·8	5·2	12·1	9·4	9·4	12·6	6·2	6·4	4·7
14	5·7	6·0	7·0	4·9	4·5	9·1	9·7	8·6	**14·7**	4·2	5·8	9·0
15	6·5	5·4	8·0	4·1	5·0	8·2	8·7	8·7	9·0	5·8	6·4	9·3
16	7·6	5·1	9·7	4·4	4·8	7·2	10·2	8·6	7·1	5·3	7·2	7·2
17	6·7	4·7	**11·2**	5·3	6·0	7·2	13·2	9·3	8·7	6·2	5·1	**9·5**
18	9·5	5·0	9·4	4·6	7·7	6·6	13·2	9·6	5·4	4·9	5·3	7·8
19	**10·2**	5·3	6·7	4·3	6·2	12·0	13·8	8·7	6·9	6·5	6·2	5·2
20	6·9	6·4	8·1	5·3	**7·9**	13·8	12·3	9·0	6·2	5·8	**9·7**	5·0
21	4·5	7·5	8·0	8·1	5·6	13·6	10·9	9·6	6·6	6·2	8·3	6·3
22	4·9	7·2	7·0	8·7	6·5	11·5	11·1	9·6	6·6	6·6	7·6	7·2
23	**3·5**	7·0	8·8	7·8	5·9	11·5	11·5	9·6	**4·2**	4·7	6·4	8·0
24	6·0	7·6	8·0	7·0	**3·9**	10·6	9·5	7·2	5·0	5·0	6·5	8·0
25	3·7	**10·0**	7·8	7·1	4·2	9·3	**7·7**	5·6	7·5	6·5	6·9	5·3
26	5·8	6·7	7·9	11·1	4·9	12·5	8·6	6·5	6·5	3·9	5·2	6·5
27	4·7	6·1	9·6	11·5	4·7	11·9	9·7	5·0	4·2	4·7	4·7	7·3
28	6·7	5·8	5·9	**11·9**	5·0	10·6	10·4	**4·5**	5·2	4·9	5·1	7·0
29	5·9	6·3	8·8	6·2	5·0	8·9	11·5	5·5	6·2	6·7	5·7	5·6
30	6·5		9·5	6·2	5·6	11·5	11·8	6·9	8·2	7·0	5·9	**4·2**
31	7·3		10·3		5·4		12·3	9·6		5·1		6·5
Monthly Mean.	6·3	6·2	8·0	6·6	5·6	9·5	**10·3**	9·4	7·8	**5·5**	6·1	6·8
Annual Variation	—1·1	—1·2	+0·6	—0·8	—1·8	+2·1	+3·5	+2·0	+0·4	—1·9	—1·3	—0·6

	Miles.
The mean velocity for June to August	9·9
Do. for September to May	6·5
Do. for the year	7·4
The greatest monthly mean (that of July)	10·9
The least monthly mean (that of October)	5·5
Difference	= 5·4
The greatest mean daily velocity of wind in the year (that of 5th July) was	15·0
The least do. do. (that of 8th October) was	3·3
Difference	= 11·7

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1904.

TABLE IX.—*Showing for the year 1904 the sum of the Velocity, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month from each of the sixteen Principal Directions and also the number of hours, Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1904.	N.			N.N.E.			N.E.			E.N.E.			E.			E.S.E.			S.E.			S.S.E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity	Sum of Velocities.	Number of Observations.	Mean Velocity
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ...	788	111	7·1	290	51	5·7	571	82	7·0	558	70	8·0	320	36	8·9	61	9	6·8	9	2	4·5	0	0	0·0
February ...	538	95	5·7	297	42	7·1	494	66	7·5	443	61	7·3	233	29	8·0	101	16	6·3	21	3	7·0	17	3	5·7
March ..	545	67	8·0	173	27	6·4	147	27	5·4	185	30	6·2	29	5	5·8	31	7	4·4	67	7	9·6	200	17	11·8
April ...	191	26	7·3	125	21	6·0	61	10	6·1	22	4	5·5	34	4	8·5	0	0	0·0	43	6	7·2	62	8	7·7
May ...	48	12	4·0	5	1	5·0	0	0	0·0	0	0	0·0	9	2	4·5	0	0	0·0	0	0	0·0	9	2	4·5
June ..	12	3	4·0	0	0	0·0	7	1	7·0	20	2	10·0	126	8	15·7	44	5	8·8	55	4	13·7	708	43	16·5
July ..	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0
August ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	12	1	12·0	30	3	10·0	7	1	7·0
September...	97	15	6·5	113	17	6·6	94	14	6·7	74	10	7·4	66	10	6·6	5	1	5·0	95	14	6·8	281	27	10·4
October ...	488	82	6·0	231	38	6·1	325	45	7·2	473	66	7·2	261	35	7·5	402	54	7·4	214	30	7·1	138	24	5·7
November ..	500	82	6·1	163	27	6·0	719	89	8·1	1,316	167	7·9	508	68	7·5	100	13	7·7	17	5	3·4	7	1	7·0
December ...	492	76	6·5	180	24	7·5	1,023	120	8·5	1,386	152	9·1	386	49	7·9	54	8	6·7	39	7	5·6	25	4	6·2
Year ...	3,699	569	6·5	1,577	248	6·4	3,441	454	7·6	4,477	562	8·0	1,972	246	8·0	810	114	7·1	590	81	7·3	1,454	130	11·2

1904.	S.			S.S.W.			S.W.			W.S.W.			W.			W.N.W.			N.W.			N.N.W.			Number of observations.		No. of pours
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm	Variable.	Record host.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.			
January ...	0	0	0·0	0	0	0·0	0	0	0·0	7	1	7·0	154	20	7·7	550	59	9·3	1,541	135	11·4	1,764	167	10·6	1	0	0
February ...	0	0	0·0	0	0	0·0	0	0	0·0	31	5	6·2	289	34	8·5	1,077	95	11·3	1,648	174	9·5	665	71	9·4	2	0	0
March ...	255	16	15·9	188	22	8·5	208	31	6·7	52	7	7·4	166	23	7·2	1,317	115	11·5	2,889	223	13·0	1,513	120	12·6	0	0	0
April ...	104	13	8·0	104	21	5·0	137	28	4·9	388	62	6·3	1,591	178	8·9	2,141	182	11·8	978	99	9·9	516	53	9·7	5	0	0
May ...	42	4	10·5	203	38	5·3	485	91	5·3	1,577	227	6·9	1,609	183	8·8	1,308	117	11·2	389	52	7·5	66	15	4·4	0	0	0
June ...	520	37	14·1	275	29	9·5	280	30	9·3	2,984	226	13·2	4,354	298	14·6	372	26	14·3	60	8	7·5	0	0	0·0	0	0	0
July ...	6	1	6·0	28	3	9·3	70	8	8·7	6,084	404	15·1	5,377	309	17·4	174	12	14·5	79	6	13·2	10	1	10·0	0	0	0
August ...	15	2	7·5	19	5	3·8	152	22	6·9	5,760	421	13·7	4,180	281	14·9	73	5	14·6	22	3	7·3	0	0	0·0	0	0	0
September...	156	17	9·2	188	25	7·5	120	14	8·6	779	64	12·2	2,649	220	12·0	2,263	197	11·5	671	59	11·4	161	16	10·1	0	0	0
October ...	169	19	8·9	77	18	4·3	27	6	4·5	79	11	7·2	346	51	6·8	667	73	9·1	1,172	125	9·4	544	67	8·1	0	0	0
November...	0	0	0·0	0	0	0·0	4	1	4·0	41	9	4·6	66	9	7·3	859	84	10·2	1,162	119	9·8	459	45	10·2	1	0	0
December ...	0	0	0·0	0	0	0·0	41	7	5·9	49	7	7·0	251	35	7·2	402	42	9·6	1,200	97	12·4	1,345	116	11·6	0	0	0
Year ...	1,267	109	11·6	1,082	161	6·7	1,524	238	6·4	17,831	1,444	12·3	21,032	1,641	12·8	11,203	1,007	11·1	11,811	1,100	10·7	7,043	671	10·5	9	0	0

Temperature of the Ground, 1904.

TABLE X.—*Showing for each Month, the Mean Temperature of the Ground and its Annual Variation, at the respective depths of* 1, 9, 20, 60 *and* 132 *inches below the surface.*

Depth.	1 Inch.		9 Inches.		20 Inches.		60 Inches.		132 Inches.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January ...	77·5	−4·8	78·8	−5·0	82·5	−4·2	84·6	−2·3	84·6	−0·8
February ...	79·0	−3·3	80·1	−3·7	83·2	−3·5	84·5	−2·4	84·2	−1·2
March ...	81·5	−0·8	82·2	−1·6	84·6	−2·1	84·9	−2·0	84·1	−1·3
April ...	84·8	+2·5	85·8	+2·0	87·8	+1·1	86·4	−0·5	84·4	−1·0
May ...	87·4	+5·1	88·0	+4·2	90·0	+3·3	88·1	+1·2	85·3	−0·1
June ...	85·2	+2·9	87·3	+3·5	90·3	+3·6	89·4	+2·5	86·0	+0·6
July ...	83·7	+1·4	85·8	+2·0	88·9	+2·2	88·8	+1·9	86·4	+1·0
August ...	82·8	+0·5	85·0	+1·2	88·1	+1·4	88·2	+1·3	86·3	+0·9
September ...	82·9	+0·6	84·4	+0·6	87·2	+0·5	87·5	+0·6	86·0	+0·6
October ...	84·5	+2·2	85·3	+1·5	87·5	+0·8	87·3	+0·4	86·0	+0·6
November ...	80·9	−1·4	82·7	−1·1	86·3	−0·4	87·1	+0·2	85·9	+0·5
December ...	78·0	−4·3	80·3	−3·5	84·2	−2·5	86·0	−0·9	85·4	0·0
Year ...	82·3	...	83·8	...	86·7	...	86·9	...	85·4	...

Extent of Cloudy Sky, 1904.

TABLE XI.—*Means of Estimations made at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10.*

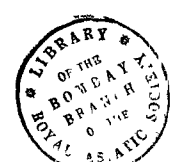
1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
					MONTH.							
1	3·4	0·6	1·0	**7·0**	2·0	2·4	9·0	8·4	7·8	3·4	1·8	4·6
2	1·0	...	3·4	5·0	1·6	3·4	**10·0**	**10·0**	7·4	0·2	2·0	0·6
3	0·4	...	**6·2**	...	3·0	2·4	10·0	10·0	5·2	3·0	0·6	0·4
4	2·4	0·2	4·6	...	1·6	2·8	10·0	10·0	7·2	0·2	0·6	1·6
5	1·0	...	3·2	...	5·0	2·2	10·0	9·6	4·2	...	0·4	1·2
6	1·4	...	4·6	3·4	4·4	**1·8**	8·4	10·0	4·6	0·6	...	4·4
7	...	...	1·6	1·2	4·4	4·0	8·8	9·8	8·0	...	...	3·0
8	...	...	...	1·4	1·6	9·6	8·2	10·0	8·2	0·6	...	6·6
9	...	...	...	1·4	2·8	9·4	9·6	10·0	8·0	2·0	...	5·2
10	**4·0**	0·6	...	2·4	2·0	9·8	10·0	8·8	7·4	5·8	...	4·2
11	...	0·4	...	0·2	2·2	9·8	7·2	8·8	**10·0**	**9·6**	...	...
12	...	0·2	...	...	**0·8**	7·0	7·4	8·6	9·0	9·4	...	1·4
13	0·6	...	0·2	...	1·6	7·4	7·4	8·4	9·2	7·4	...	5·2
14	0·2	...	...	0·6	1·8	9·2	8·8	8·4	10·0	8·2	...	7·6
15	...	...	...	4·2	0·8	9·0	7·8	9·0	10·0	8·0	0·4	**9·2**
16	...	...	0·4	0·6	2·2	5·6	7·8	9·2	7·2	2·4	2·2	0·4
17	...	0·4	...	2·0	1·4	7·6	8·2	9·6	2·8	2·0	**6·4**	1·2
18	...	1·0	0·2	0·8	2·4	9·8	8·8	9·0	2·0	4·8	2·2	0·2
19	...	0·2	1·2	2·0	2·0	9·8	8·6	7·6	6·0	4·6	2·0	0·8
20	...	1·0	1·0	2·8	1·6	**10·0**	8·0	7·6	6·4	4·6	...	0·2
21	...	2·0	...	1·2	3·4	10·0	7·4	9·2	5·6	7·2	...	0·6
22	0·4	8·6	2·8	0·2	4·4	8·2	8·8	6·8	5·6	2·8	...	1·0
23	0·4	8·2	0·2	...	4·8	6·6	9·8	6·8	4·4	1·4	...	1·8
24	0·2	**9·8**	...	2·0	3·4	6·8	6·8	7·2	2·0	0·8	...	...
25	...	9·0	...	1·4	**5·8**	9·6	8·4	8·4	2·2	3·6	1·0	...
26	0·2	2·2	...	0·4	4·0	8·6	**6·4**	5·0	6·4	1·2	5·8	...
27	3·2	3·4	2·2	2·2	3·6	7·2	8·0	4·6	5·8	1·2	5·2	...
28	2·2	1·6	1·2	1·4	3·6	5·8	8·6	**4·0**	2·6	2·0	2·0	...
29	3·8	...	1·2	1·0	2·4	7·0	8·4	9·2	**0·4**	2·4	...	...
30	3·2	...	0·2	0·2	4·8	9·0	7·6	9·0	0·6	4·2	0·2	...
31	1·4	...	1·4		3·8		9·2	7·6		2·4		0·2
Monthly Mean.	**1·0**	1·7	1·2	1·5	2·9	7·1	**8·5**	8·4	5·9	3·4	1·1	2·0
Annual Variation ...	−2·7	−2·0	−2·5	−2·2	−0·8	+3·4	+4·8	+4·7	+2·2	−0·3	−2·6	−1·7

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December ... ... 1·4

Mean of the months from May to October ... ... 6·0

Mean for the year ... ... 3·7



Rainfall, 1904.

TABLE XII.—*Total fall of rain (in inches) as measured by Newman's Gauge, placed 4½ feet above the ground.*

1904. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
			in.		in.	in.	in.	in.	in.	in.		
1	...	...	...	...	...	0·05	0·06	0·02	0·03	...	...	...
2	...	...	...	...	...	...	0·09	0·52	...	...	...	...
3	...	...	...	...	...	...	1·58	1·52	...	...	...	...
4	...	...	0·07	...	...	...	2·84	0·86	...	...	...	...
5	...	...	...	...	...	...	0·97	0·39	0·01	...	...	...
6	...	...	...	...	...	0·01	1·87	0·01	...	...	...	...
7	...	...	...	...	...	...	0·16	0·04	0·01	...	...	...
8	...	...	...	...	...	2·22	0·01	0·01	0·01	...	...	...
9	...	...	...	...	...	1·58	0·10	0·15	...	...	...	...
10	...	...	...	...	...	0·14	0·01	0·25	0·05	0·16	...	...
11	...	...	...	...	...	3·33	0·14	...	0·72	0·13	...	...
12	...	...	...	...	...	0·12	...	0·03	0·05	0·01	...	...
13	...	...	...	...	...	...	0·11	0·13	0·04	0·07	...	...
14	...	...	...	...	...	...	0·63	0·40	...	0·70	...	...
15	...	...	...	...	...	...	1·27	0·02	0·04	...	...	...
16	...	...	...	...	...	...	0·09	0·09	0·11	0·10	...	...
17	...	...	...	...	...	...	0·74	...	0·01	...	...	...
18	...	...	...	...	...	...	0·86	0·19	0·01	...	...	...
19	...	...	...	...	...	...	1·91	0·23	...	...	...	...
20	...	...	...	...	...	...	0·15	...	0·01	...	...	...
21	...	...	...	...	...	...	0·04	0·03	...	...	0·26	...
22	...	...	...	...	...	...	0·08	0·31	0·15	...	...	...
23	...	...	...	...	...	...	0·42	0·06	...	0·06	...	...
24	...	...	...	...	...	...	0·17	...	0·17	...	...	...
25	...	...	...	...	...	...	0·36	0·20	1·02	...	...	...
26	...	...	...	...	...	...	0·01	0·30	...	...	...	...
27	...	...	...	...	...	...	0·02	0·24	0·02	...	...	...
28	...	...	...	...	...	...	0·03	0·03	...	...	...	...
29	...	...	...	...	...	...	0·10	...	...	...	...	...
30	...	...	...	...	...	...	0·66	0·08	0·06	...	...	...
31	...	...	...	...	0·02	...	...	...	0·28	...	...	...
Monthly Total	...	...	0·07	...	0·02	15·10	10·14	5·72	1·81	0·56	...	...
Number of rainy days.	...	...	1	...	1	25	25	23	11	4	...	...

Total fall of rain in the year ... ... 33·42 inches.
Total number of rainy days in the year 90
The greatest daily fall of rain in the year (that of 11th June) was ... ... 3·33 inches.
No rain fell in the months of January, February, April, November and December, nor on any of the days left blank in the above table.

TABLE XIII.—Five-day Means, 1904.

Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the Air.	Pressure of Vapour.	Additional Capacity of the Air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.
	In.	°	In.	In.	In.	Miles.	Miles.		In.	°	In.	In.	In.	Miles.	Miles.
1	29·941	74·9	0·641	0·228	...	6·8 N.	3·2 W.	38	29·622	81·4	0·925	0·146	3·11	5·4 S.	16·8 W.
2	30·010	75·8	·568	·331	...	5·7 N.	2·9 E.	39	·693	81·7	·908	·176	0·68	4·9 S.	13·0 W.
3	29·950	74·3	·589	·264	...	5·1 N.	0·9 W.	40	·676	81·7	·899	·184	0·53	1·7 S.	16·9 W.
4	·913	**72·1**	**·556**	·236	...	**10·0 N.**	3·0 W.	41	·678	81·7	·904	·179	0·40	1·6 S.	15·7 W.
5	·915	76·1	·694	·211	...	3·4 N.	1·0 W.	42	·729	81·6	·886	·194	0·77	4·3 S.	12·9 W.
6	·935	75·8	·638	·258	...	5·6 N.	2·4 W.	43	·669	81·0	·892	·168	2·14	0·8 S.	14·8 W.
7	·925	74·5	·580	·281	...	6·1 N.	2·6 W.	44	·664	80·0	·888	·136	1·31	3·1 S.	**17·6 W.**
8	·905	75·7	·614	·285	...	4·2 N.	0·9 W.	45	·701	80·5	·879	·164	0·47	5·7 S.	16·5 W.
9	·891	78·0	·643	·324	...	4·6 N.	0·1 W.	46	·743	80·7	·873	·176	0·17	4·6 S.	12·4 W.
10	·881	75·8	·665	·231	...	3·1 N.	3·9 W.	47	·774	81·2	·857	·208	0·16	1·6 S.	13·1 W.
11	·929	75·2	·658	·218	...	7·0 N.	4·3 W.	48	·793	80·6	·856	·190	1·21	2·3 S.	7·1 W.
12	878	77·7	·671	·340	...	5·0 N.	2·3 W.	49	·798	80·9	·847	·208	0·37	3·5 S.	11·0 W.
13	845	77·7	·718	·235	0·07	1·4 S.	1·7 W.	50	·816	81·4	·834	·239	0·02	0·9 N.	11·6 W.
14	·916	75·7	·580	·312	...	9·1 N.	5·0 W.	51	·777	80·6	·857	·187	0·83	3·2 N.	10·2 W.
15 ... +	·851	78·1	·736	·232	...	7·1 N.	6·2 W.	52	·740	79·4	·863	·140	0·87	3·9 S.	10·2 W.
16	·822	79·7	·725	·292	...	7·4 N.	6·6 W.	53	·821	81·1	·861	·202	...	2·5 N.	6·3 W.
17	·872	78·8	·740	·251	...	6·7 N.	6·2 W.	54	·915	80·5	·834	·211	0·06	2·9 N.	2·4 W.
18	·785	82·8	·817	·311	...	3·6 N.	5·3 W.	55	·873	81·9	·880	·211	...	5·4 N.	2·9 W.
19	·771	81·8	·849	·240	...	1·9 N.	5·5 W.	56	·844	83·2	·850	·291	...	4·9 N.	0·7 W.
20	·740	81·8	·836	·251	...	0·5 S.	5·9 W	57	·815	81·5	·913	·166	0·30	2·3 S.	0·7 E.
21	·815	82·0	·796	·300	...	2·5 N.	6·4 W.	58	·747	81·4	·882	·191	...	0·9 N.	0·3 E.
22	·832	80·8	·726	·330	...	0·3 S.	5·6 W	59	·836	82·4	·868	·245	0·26	2·9 N.	0·2 W.
23	·799	82·3	·866	·243	...	4·2 N.	7·8 W.	60	·842	82·1	·877	·223	...	2·1 N.	1·6 W.
24	·790	83·3	·891	·250	...	7·2 N.	8·3 W.	61	·882	82·1	·819	·281	...	4·7 N.	1·9 W.
25	·777	83·8	·913	·249	...	3·4 S.	4·7 W.	62	·898	80·4	·761	·282	...	4·4 N.	0·5 W.
26	·780	84·4	·884	·302	...	1·0 N.	7·3 W.	63	·924	77·4	·705	·242	...	3·9 N.	0·2 E.
27	·750	84·7	·882	·315	...	0·1 N.	6·9 W.	64	·957	78·6	·724	·263	...	5·4 N.	0·2 W.
28	·756	84·7	·910	·286	...	2·7 N.	7·7 W.	65	30·017	79·4	·631	**·378**	...	5·9 N.	1·4 E.
29	·694	84·9	·922	·283	...	0·0	7·1 W.	66	29·973	76·2	·579	·333	...	4·2 N.	1·8 E.
30	·745	85·4	·852	·369	...	2·2 S.	6·4 W.	67	·996	76·4	·634	·281	...	3·4 N.	1·4 E.
31	·764	**85·5**	·891	·334	0·07	0·9 S.	8·0 W.	68	·978	76·3	·570	·346	...	5·4 N.	**4·5 E.**
32	·681	83·8	·926	·240	3·81	**8·3 S.**	2·2 W.	69	·910	74·7	·626	·240	...	5·5 N.	1·7 E.
33	·643	82·1	·948	·152	4·33	6·9 S.	11·6 W.	70	·910	75·8	·665	·229	...	5·4 N.	1·2 W.
34	·670	81·1	·935	**·128**	4·87	2·8 S.	5·2 W.	71	·924	75·1	·643	·233	...	5·5 N.	1·4 W.
35	·664	83·1	**·952**	·182	0·86	2·0 S.	17·4 W.	72	·996	75·9	·646	·255	...	6·5 N.	0·6 W.
36	·703	83·2	·937	·199	0·52	0·3 S.	14·6 W.	73	**30·050**	74·5	·577	·284	...	4·3 N.	0·6 E.
37 *	**·582**	81·2	·917	·149	**5·23**	2·0 S.	15·0 W.								

* Five-day sums, *not means*.

TABLE I.—Barometric Pressure, 1905.

Height of Barometer above mean Sea-level = 37 feet.

1905. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	30·112	30·008	30·035	29·855	29·838	29·809	29·663	29·741	29·752	29·801	29·874	29·977
2	·071	29·998	29·966	·832	·838	·771	·696	·728	·769	·829	·939	·953
3	·005	·944	·994	·836	·823	·732	·721	·757	·777	·852	·934	·957
4	·007	·944	·994	·867	·848	·756	·699	·765	·740	·879	·903	·941
5	·067	·950	·994	·892	·829	·730	·629	·782	·710	·884	·894	·936
6	·061	·969	·994	·912	·804	·737	·625	·789	·704	·868	·936	·912
7	·024	·949	·958	·926	·819	·758	·631	·778	·705	·845	·988	·903
8	·010	·949	·959	·877	·828	·755	·625	·781	·712	·848	30·009	·899
9	29·963	·958	·955	·887	·820	·752	·718	·782	·681	·827	29·975	·881
10	·920	·992	·922	·890	·772	·752	·771	·768	·615	·791	·905	·887
11	·932	·994	·861	·892	·742	·739	·751	·712	·679	·793	·866	·923
12	·966	·970	·854	·882	·759	·731	·748	·701	·763	·839	·871	·937
13	·972	·930	·890	·866	·788	·740	·726	·759	·784	·860	·912	·946
14	·958	·944	·848	·848	·748	·772	·686	·758	·790	·793	·919	·935
15	·947	·929	·803	·836	·703	·746	·686	·753	·814	·753	·930	·942
16	·964	·930	·813	·850	·735	·706	·680	·739	·857	·729	·964	·938
17	·956	·950	·841	·803	·751	·698	·684	·718	·888	·726	·953	·925
18	·975	·951	·880	·790	·714	·693	·697	·678	·693	·732	·936	·943
19	·965	·919	·890	·811	·709	·667	·663	·706	·880	·722	·928	·962
20	·938	·901	·863	·838	·712	·631	·644	·750	·853	·749	·947	·964
21	·937	·893	·844	·839	·665	·649	·618	·731	·825	·812	·961	·942
22	·969	·913	·845	·833	·670	·692	·609	·721	·796	·856	·949	·960
23	·969	·943	·830	·842	·710	·720	·610	·723	·808	·884	·940	·969
24	·922	·943	·821	·872	·746	·690	·625	·701	·818	·857	·938	·984
25	·908	·927	·842	·874	·764	·691	·684	·679	·800	·867	·988	30·017
26	·866	·911	·849	·869	·740	·678	·686	·723	·778	·888	·993	29·972
27	·938	·989	·874	·886	·766	·631	·690	·722	·803	·883	30·014	·953
28	·979	30·034	·866	·899	·782	·629	·685	·721	·826	·845	29·996	·956
29	·996		·880	·871	·793	·624	·666	·727	·822	·870	·985	·936
30	·982		·939	·848	·767	·648	·691	·746	·816	·899	·966	·911
31	·967		·927		·788		·734	·753		·863		·938
Monthly Mean.	29·976	29·951	29·898	29·861	29·767	29·711	29·679	29·739	29·782	29·827	29·944	29·942
Annual Variation ...	+·136	+·111	+·058	+·021	—·073	—·129	—·161	—·101	—·058	—·013	+·104	+·102

	In.
Annual mean	29·840
The greatest mean daily barometric pressure in the year (that of 1st January) was	30·112
The least do. do. do. (that of 22nd July) was	29·609
Difference =	0·503

TABLE II.—Temperature of the Air, 1905.

1905. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	°	°	°	°	°	°	°	°	°	°	°	°
1	75·2	67·0	**68·9**	**74·6**	**81·3**	86·2	79·1	81·9	82·0	80·3	82·3	**79·4**
2	74·6	68·0	70·0	76·8	81·8	86·3	81·9	81·0	**82·3**	80·8	81·6	78·6
3	73·1	70·0	72·3	76·5	82·5	86·9	82·7	80·2	82·2	82·2	82·0	77·3
4	72·5	71·4	73·4	76·5	82·0	86·9	81·7	81·6	81·5	83·3	81·5	76·7
5	71·9	69·5	75·2	76·4	82·0	86·3	81·1	80·8	81·3	**85·3**	80·5	76·6
6	71·3	**65·8**	75·2	76·2	82·8	86·1	82·5	81·0	80·5	85·1	81·5	75·8
7	73·5	66·0	73·8	76·6	83·1	86·6	82·8	81·1	80·7	85·1	82·0	75·6
8	**75·8**	66·3	73·1	76·8	83·4	86·6	83·0	80·5	78·7	85·0	81·8	74·9
9	74·3	67·7	73·5	78·1	83·7	86·8	**83·8**	81·6	78·9	83·4	81·7	74·0
10	73·2	67·9	74·6	77·6	83·8	85·7	83·7	81·5	79·9	83·3	80·9	74·3
11	72·1	68·8	74·9	77·0	84·0	85·9	83·4	81·1	79·6	83·1	81·1	74·4
12	71·9	69·8	74·8	77·8	84·5	85·6	83·4	80·8	79·7	83·8	82·2	73·7
13	72·6	71·2	75·7	78·6	84·9	86·3	82·3	81·3	**77·9**	83·8	81·3	73·9
14	73·1	71·1	76·9	78·6	85·0	86·7	83·4	81·5	80·9	82·9	81·7	74·6
15	73·3	71·2	**79·0**	78·2	85·4	86·5	82·4	81·7	81·1	84·5	81·3	77·5
16	73·4	69·7	77·7	78·8	85·5	86·3	82·9	82·2	79·5	82·8	**82·7**	78·1
17	73·9	69·1	76·9	80·3	85·0	86·0	81·7	79·3	79·3	82·2	82·3	77·3
18	73·7	68·9	76·7	80·4	84·7	86·4	82·0	**78·5**	80·0	81·2	80·9	76·5
19	72·0	69·6	76·3	80·2	85·0	86·3	82·6	80·8	80·2	80·9	80·8	75·7
20	71·5	71·4	75·2	80·1	85·3	86·6	81·8	81·8	80·6	82·0	80·9	74·8
21	73·0	72·4	75·1	79·4	85·5	86·8	79·1	82·2	81·0	80·4	79·8	74·7
22	72·6	71·9	75·1	79·8	85·4	**87·0**	**78·7**	81·8	80·4	80·9	78·7	73·1
23	68·2	71·7	76·1	79·6	85·1	85·1	80·1	80·9	80·4	81·6	79·5	72·6
24	68·7	72·2	75·9	79·5	85·1	85·5	80·4	80·0	81·3	81·4	81·9	75·4
25	71·7	73·9	75·5	79·7	85·6	84·9	81·3	82·1	82·3	81·7	78·3	74·8
26	74·6	**75·5**	76·2	80·1	85·4	81·1	80·9	80·8	81·7	81·6	76·2	74·7
27	74·7	74·4	76·7	80·3	85·7	80·3	81·1	80·7	81·9	81·7	**71·2**	75·6
28	72·8	71·5	76·6	80·4	85·8	**80·2**	81·0	81·2	81·8	80·5	74·9	74·2
29	69·5		77·3	80·4	85·8	83·3	80·8	81·2	81·2	**80·0**	78·1	74·5
30	65·4		74·6	**80·5**	85·8	80·2	81·7	82·0	81·3	80·0	78·7	73·9
31	**65·0**		73·6		**86·0**		82·0	**82·4**		82·7		**69·6**
Monthly Mean.	72·2	**70·1**	75·1	78·5	84·4	**85·4**	81·8	81·2	80·7	82·4	80·3	75·3
Annual Variation ...	—6·7	—8·8	—3·8	—0·4	+5·5	+6·5	+2·9	+2·3	+1·8	+3·5	+1·4	—3·6

Annual mean ... ... ° 78·9

The greatest mean daily temperature of the air in the year (that of 22nd June) was ... 87·0
The least do. do. do. (that of 31st January) was ... 65·0

Difference = 22·0

TABLE III.—Pressure of Vapour, 1905.

1905. Date.	January.	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	0·623	0·338	0·460	**0·496**	**0·853**	0·909	0·916	**0·920**	0·872	0·864	0·814	**0·753**
2	·601	·376	**·432**	·530	·903	·926	·935	·903	·872	·904	**·865**	·684
3	·606	·502	·485	·649	·922	·956	·936	·881	·862	·922	·861	·641
4	·579	·607	·568	·708	·886	·951	·919	·906	·877	·950	·751	·646
5	·546	·526	·633	·727	·892	·953	·923	·888	·865	·871	·798	·589
6	·560	·320	·617	·699	·933	·938	·945	·898	·872	·895	·783	·558
7	·622	**·307**	·640	·731	·937	·937	**·955**	·910	·874	·845	·739	·566
8	**·685**	·319	·605	·746	·953	·915	·952	·900	·875	·824	·747	·526
9	·676	·356	·688	·765	·961	·915	·954	·898	·890	·898	·755	·481
10	·608	·337	·705	·748	·947	·880	·944	·889	·904	**·952**	·772	·475
11	·615	·400	·697	·741	·934	**·874**	·919	·899	·899	·950	·775	·481
12	·631	·434	·744	·766	·915	·908	·917	·894	·890	·871	·792	·529
13	·638	·479	**·756**	·778	·927	·891	·924	·894	·882	·912	·810	·561
14	·647	·531	·715	·771	·943	·912	·937	·914	·862	·905	·762	·576
15	·625	·612	·646	·782	**·966**	·916	·945	·913	·841	·864	·785	·609
16	·645	·543	·698	·797	·952	·938	·942	·897	·847	·868	·698	·613
17	·676	·481	·678	·820	·923	·961	·920	·878	·838	·915	·642	·670
18	·616	·380	·625	**·867**	·942	**·979**	·932	·871	·826	·855	·646	·663
19	·484	·390	·693	·841	·931	·966	·931	·896	**·800**	·847	·667	·687
20	·468	·412	·655	·807	·934	·927	·918	·882	·817	·863	·669	·728
21	·608	·466	·658	·795	·939	·937	·896	**·884**	·839	·872	·622	·662
22	·633	·557	·673	·799	·928	·942	**·883**	·880	·831	·841	·650	·528
23	·378	·615	·649	·821	·900	·942	·893	·889	·845	·862	·652	·537
24	·421	·612	·656	·831	·906	·959	·905	·897	·850	·887	·706	·609
25	·555	·617	·729	·838	·913	·943	·919	·909	·842	·886	·698	·609
26	·638	**·712**	·735	·857	·904	·936	·914	**·870**	·830	·909	**·574**	·577
27	·675	·680	·714	·860	·902	·930	·907	·903	·850	·881	·611	·589
28	·604	·549	·694	·822	·900	·897	·908	·911	·886	·835	·639	·660
29	·452		·635	·799	·906	·938	·920	**·890**	·924	·799	·720	·648
30	·298		·507	·803	·885	·933	·930	·893	**·928**	·828	·741	·617
31	**·288**		·462		·894		·924	·889		**·796**		**·402**
Monthly Mean.	0·571	**0·481**	0·640	0·766	0·920	**0·930**	0·925	0·895	0·863	0·876	0·725	0·596
Annual Variation ...	—·195	—·285	—·126	·000	+·154	+·164	+·159	+·129	+·097	+·110	—·041	—·170

	In.
Annual mean	0·766
The greatest mean daily pressure of vapour in the year (that of 18th June) was	0·979
The least do. do. do. (that of 31st January) was ...	0·288
Difference =	0·691

TABLE IV.—Additional Capacity of the Air, 1905.

1905. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1	0·256	0·331	0·247	0·367	0·219	0·347	**0·078**	0·171	0·221	0·171	0·294	0·258
2	·261	·320	·307	**·400**	**·185**	·334	·156	·156	·234	**·149**	·218	·297
3	·210	·238	·313	·269	·191	·323	·184	·150	·240	·182	·235	·300
4	·224	·168	·259	·208	·209	·331	·162	·179	·205	·192	·328	·276
5	·239	·196	·245	·187	·205	·303	·137	·164	·206	·349	·246	·332
6	·209	·318	·259	·210	·188	·311	·165	·162	·170	·317	·299	·339
7	·210	·339	·198	·189	·200	·328	·166	·151	·175	·368	·361	·328
8	·215	·334	·214	·180	·194	·357	·176	·141	·106	**·385**	·349	·347
9	·184	·331	·139	·201	·198	·362	·206	·182	·097	·251	·339	·367
10	·214	·353	·156	·202	·216	·352	·212	·188	·115	·190	·289	**·383**
11	·175	·310	·171	·188	·235	**·369**	**·226**	·164	·112	·187	·293	·378
12	**·153**	·300	**·120**	·188	·276	·321	·225	·160	·124	·292	·313	·311
13	·167	·290	·135	·204	·275	·368	·178	·177	**·075**	·249	·262	·282
14	·172	·234	·216	·211	·263	·361	·205	·160	·192	·221	·321	·291
15	·200	**·154**	·349	·186	·256	·347	·163	·170	·222	·322	·285	·345
16	·181	·184	·253	·192	·271	·320	·182	·204	·159	·260	·430	·355
17	·165	·235	·251	·215	·283	·284	·164	·122	·166	·187	**·468**	·276
18	·217	·333	·297	·174	·251	·287	·161	**·103**	·201	·214	·419	·258
19	·306	·341	·215	·189	·274	·289	·184	·157	·233	·208	·393	·206
20	·310	**·370**	·221	·222	·285	·343	·168	·204	·229	·233	·394	**·139**
21	·210	·341	·215	·213	·287	·340	·100	·213	·222	·165	·401	·200
22	·170	·230	·201	·221	·293	·345	·097	·208	·208	·217	·337	·292
23	·315	·165	·253	·191	·311	·264	·134	·166	·195	·220	·380	·272
24	·289	·179	·243	·179	·306	·268	·131	·129	·219	·186	·387	·276
25	·230	·224	·157	·178	·319	·259	·151	·187	**·261**	·198	·271	·260
26	·228	·175	·172	**·172**	·318	·127	·141	·180	·251	·171	·331	·288
27	·188	·172	·204	·179	·335	·105	·154	·148	·242	·202	**·154**	·299
28	·203	·223	·223	·221	·339	·135	·149	·157	·203	·207	·230	·189
29	·270		·304	·244	·333	·206	·132	·176	·143	·226	·247	·208
30	·332		·351	·241	**·355**	**·093**	·153	·202	·144	·198	·246	·220
31	**·337**		**·367**		·352		·171	**·219**		·332		·327
Monthly Mean.	0·227	0·264	0·234	0·214	0·265	0·293	**0·162**	0·169	0·186	0·234	**0·317**	0·287
Annual Variation ...	—·011	+·026	—·004	—·024	+·027	+·055	—·076	—·069	—·052	—·004	+·079	+·049

	In.
Annual mean	0·238
The greatest mean daily additional capacity of the air in the year (that of 17th November) was.	0·468
The least do. do. do. (that of 13th September) was.	0·075
Difference =	0·393

Maxima and Minima of different Meteorological Elements, 1905.

TABLE V.—*In which are collected the individual observations in each month of the year, which showed the greatest and the least values of the following elements, viz., Height of Barometer corrected for Temperature, Temperature of Air, Pressure of Vapour and Additional Capacity of Air.*

1905.	HEIGHT OF BAROMETER.			TEMPERATURE OF AIR.			PRESSURE OF VAPOUR.			ADDITIONAL CAPACITY.		
Month.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.	Greatest.	Least.	Range.
	in.	in.	in.	°	°	°	in.	in.	in.	in.	in.	in.
January ...	30·192	29·805	0·387	85·0	56·8	28·2	0·788	0·168	0·620	0·666	0·064	0·602
February .	·099	·844	·255	84·2	58·5	25·7	·776	·187	·589	·941	·053	·888
March ...	·111	·736	·375	83·6	63·9	19·7	·802	·304	·498	·559	·049	·510
April ...	29·985	·710	·275	86·0	68·5	17·5	·920	·370	·550	·570	·055	·515
May ...	·912	·600	·312	90·4	77·8	12·6	1·002	·794	·208	·521	·067	·454
June ...	·861	·575	·286	91·3	76·7	14·6	·036	·836	·200	·557	·041	·516
July ...	·810	·554	·256	86·9	76·3	10·6	·000	·837	·163	·334	·045	·289
August ...	·823	·625	·198	86·3	75·5	10·8	0·983	·789	·194	·334	·045	·289
September .	·954	·572	·382	86·2	75·5	10·7	·991	·745	·246	·380	·034	·346
October ...	·961	·646	·315	92·4	75·7	16·7	1·026	·641	·385	·833	·060	·773
November .	30·102	·817	·285	91·4	68·7	22·7	0·929	·412	·517	1·009	·063	·946
December .	·099	·825	·274	88·2	63·4	24·8	·856	·307	·549	0·866	·071	·795
Year ...	30·192	29,554	0·638	92·4	56·8	35·6	1·036	0·168	0·868	1·009	0·034	0·975

Rainfall, 1905.

TABLE VI.—*Total fall of rain (in inches) as measured by F. Chambers's Self-registering Gauge, the funnel of which is 28 feet above the ground.*

1905. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
		in.				in.	in.	in.	in.	in.	in.	
1	...	...	...	...	...	...	**3·96**	...	0·05	...	...	...
2	...	...	...	...	...	0·02	0·66	0·16	...	...	...	...
3	...	...	...	...	...	...	0·80	0·22	...	...	...	...
4	...	...	...	...	...	...	0·81	0·06	0·20	0·03	...	...
5	...	...	...	...	...	0·05	1·85	0·07	0·08	...	...	...
6	...	...	...	...	...	0·01	0·03	0·36	0·33	...	...	...
7	...	...	...	...	...	...	0·03	0·05	0·32	...	...	...
8	...	...	...	...	...	...	0·08	0·20	**2·20**	...	...	...
9	...	...	...	...	...	...	...	...	0·40	...	...	...
10	...	...	...	...	...	...	0·02	0·01	0·38	...	...	...
11	...	...	...	...	...	...	0·06	0·22	0·51	...	...	...
12	...	...	...	...	...	0·05	0·11	0·06	...	...	...	...
13	...	...	...	...	...	...	0·38	0·02	1·11	...	...	...
14	...	...	...	...	...	0·02	...	0·16	0·01	0·02	...	...
15	...	...	...	...	...	...	0·43	...	...	...	...	...
16	...	0·09	...	...	...	...	0·12	...	0·21	...	...	...
17	...	...	...	...	...	0·19	0·47	0·24	...	0·02	...	...
18	...	...	...	...	...	0·06	0·23	0·76	...	...	...	...
19	...	...	...	...	...	0·01	0·25	...	...	...	...	...
20	...	...	...	...	...	...	0·17	...	...	0·07	...	...
21	...	...	...	...	...	...	0·45	0·05	...	...	...	...
22	...	...	...	...	...	...	1·34	0·03	0·06	...	...	...
23	...	...	...	...	...	0·13	0·99	0·34	0·19	...	...	...
24	...	...	...	...	...	0·06	0·79	**0·80**	...	...	...	...
25	...	...	...	...	...	0·08	0·11	...	...	...	0·02	...
26	...	...	...	...	...	**3·41**	0·23	0·02	...	...	...	...
27	...	...	...	...	...	0·15	0·16	0·11	...	...	**0·71**	...
28	...	...	...	...	...	0·06	0·39	0·28	...	...	0·21	...
29	...	...	...	...	...	...	0·16	0·11	...	...	...	...
30	...	...	...	...	...	2·10	0·05	0·04	...	...	...	...
31	...	...	...	...	...	...	...	...	...	...	...	...
Monthly Total	...	0·09	...	...	...	6·40	**15·13**	4·37	6·05	0·14	0·94	...
Number of rainy days	...	1	...	...	...	15	**28**	23	14	4	3	...

Total fall of rain in the year ... ... 33·12 inches.
Total number of rainy days in the year 88
The greatest daily fall of rain in the year (that of 1st July) was ... ... 3·96 inches.
No rain fell in the months of January, March, April, May and December, nor on any of the days left blank in the above table.

Mean Daily Velocities of the North and East Components of the Wind, 1905.

TABLE VII.—*Showing the Mean Velocities of the North or South and East or West Components of the Winds which blew on each days of the year 1905.*

In Miles per Hour.

1905. Date.	MONTH. January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.	N. or S.	E. or W.
1	2·9 N	0·4 W	14·5 N	5·2 W	10·3 N	6·4 W	10·5 N	3·8 W	4·6 N	6·3 W	2·8 N	9·0 W	6·5 S	7·1 W	3·9 S	12·3 W	2·3 N	5·5 W	5·3 N	4·4 W	1·2 N	1·0 E	4·0 N	2·3 E
2	2·8 N	0·7 W	9·2 N	1·8 W	10·5 N	2·9 W	9·6 N	4·7 W	3·9 N	7·4 W	1·1 N	9·7 W	4·9 S	15·2 W	1·1 S	15·2 W	2·9 N	4·6 W	6·7 N	4·6 W	1·6 S	1·2 W	0·9 N	0·8 E
3	4·8 N	2·4 W	2·0 N	0·5 W	11·9 N	4·4 W	5·8 N	5·6 W	5·7 N	8·9 W	0·1 N	10·7 W	6·0 S	15·5 W	0·1 S	14·0 W	0·1 N	5·1 W	4·7 N	3·7 W	3·4 N	2·5 W	3·8 N	1·4 E
4	4·3 N	0·8 W	0·2 S	1·9 W	9·8 N	4·0 W	2·3 N	6·2 W	3·4 N	7·1 W	1·8 S	9·0 W	7·0 S	17·9 W	0·0	13·2 W	2·1 S	3·7 W	4·4 N	1·4 W	8·9 N	2·6 W	5·3 N	1·1 E
5	9·8 N	1·6 W	10·2 N	3·5 W	6·5 N	3·8 W	1·6 S	3·9 W	1·3 N	6·4 W	2·4 S	5·6 W	7·1 S	18·1 W	0·5 S	11·7 W	2·2 S	10·0 W	2·8 N	0·1 W	8·3 N	2·1 W	4·0 N	1·2 E
6	5·7 N	1·6 W	13·6 N	5·7 W	5·6 N	4·1 W	2·7 N	7·6 W	1·2 S	4·6 W	4·8 S	5·1 W	0·6 S	23·0 W	2·4 S	13·5 W	0·9 N	10·0 W	3·0 N	1·5 E	2·8 N	1·6 W	4·4 N	0·1 E
7	6·7 N	0·4 E	12·7 N	4·3 W	5·7 N	3·9 W	3·1 N	6·9 W	1·0 S	5·2 W	4·4 S	5·7 W	4·0 S	15·3 W	4·9 S	14·9 W	0·9 S	13·5 W	6·3 N	0·7 W	1·9 N	0·6 W	4·0 N	3·0 E
8	5·0 N	1·7 E	13·1 N	4·6 W	6·7 N	6·6 W	2·2 N	5·5 W	0·1 S	4·9 W	1·3 S	7·9 W	5·1 S	15·6 W	3·1 S	15·2 W	0·6 S	10·6 W	4·2 N	1·1 W	4·6 N	0·7 E	4·4 N	2·4 E
9	4·3 N	1·5 W	11·7 N	2·2 W	7·7 N	5·0 W	3·3 S	3·2 W	0·5 S	6·6 W	1·0 N	7·6 W	4·6 S	10·8 W	4·2 S	11·4 W	2·1 S	10·2 W	0·7 N	1·4 E	4·5 N	1·4 E	5·7 N	3·4 E
10	5·1 N	3·6 W	12·5 N	3·5 W	7·0 N	5·7 W	1·2 N	5·6 W	3·4 S	6·0 W	4·9 N	6·8 W	4·8 S	11·7 W	5·0 S	12·0 W	4·1 S	6·1 W	0·4 S	0·8 W	4·4 N	0·3 W	4·8 N	5·2 E
11	6·6 E	4·6 W	8·6 N	3·1 W	5·8 N	6·0 W	4·3 N	7·1 W	4·9 S	3·2 W	3·5 N	8·0 W	5·4 S	10·7 W	4·5 S	15·3 W	8·9 S	2·6 W	1·3 N	1·3 W	3·1 N	2·0 E	4·3 N	5·1 E
12	6·5 E	2·0 W	9·9 N	3·5 W	2·8 N	5·0 W	4·5 N	7·4 W	6·7 S	3·6 W	3·2 N	7·6 W	8·1 S	11·2 W	5·1 S	14·6 W	5·6 S	4·6 W	3·4 N	1·7 E	0·2 N	3·2 E	5·2 N	2·5 E
13	6·6 N	3·9 W	8·3 N	3·1 W	0·7 N	5·4 W	3·5 N	7·3 W	4·7 S	4·6 W	0·1 N	7·7 W	6·7 S	12·0 W	3·4 S	10·9 W	2·6 S	5·9 W	1·3 N	0·7 E	1·6 N	1·1 E	5·2 N	1·6 E
14	5·0 N	3·6 W	8·0 N	3·2 W	7·2 N	4·5 W	0·6 N	5·5 W	4·0 S	6·0 W	1·8 S	7·1 W	6·7 S	11·6 W	0·6 S	9·6 W	0·0	11·6 W	4·6 N	0·4 E	3·9 N	0·6 E	6·8 N	2·1 E
15	4·6 N	3·0 W	6·2 N	4·8 W	12·5 N	5·9 W	0·8 N	5·7 W	5·0 S	4·2 W	2·4 S	9·9 W	4·7 S	11·7 W	1·0 N	6·4 W	0·0	9·6 W	1·7 S	1·6 E	4·3 N	1·4 E	6,1 N	3·0 E
16	3·5 N	3·4 W	4·7 N	3·4 W	10·5 N	8·3 W	1·8 N	5·7 W	3·1 S	6·1 W	2·8 S	12·3 W	4·3 S	10·1 W	0·9 N	6·9 W	0·4 S	0·1 E	0·4 S	0·9 E	6·2 N	5·6 E	4·9 N	1·8 E
17	1·4 N	4·8 W	6·8 N	0·9 W	10·0 N	7·2 W	7·6 N	5·2 W	0·3 N	5·6 W	3·6 S	11·0 W	2·6 S	8·8 W	0·4 N	0·3 E	0·2 S	0·4 E	2·5 S	1·0 E	3·6 N	5·0 E	3·9 N	2·7 E
18	6·2 N	2·0 W	13·9 N	4·7 W	4·4 N	3·4 W	1·0 N	6·2 W	3·0 N	7·1 W	1·4 S	9·5 W	2·9 S	9·8 W	1·9 S	1·2 E	0·2 S	1·3 W	1·6 S	0·7 E	3·5 N	4·3 E	0·1 N	1·7 E
19	9·4 N	2·4 W	11·3 N	2·9 W	4·7 N	8·7 W	1·4 S	5·7 W	1·9 N	7·1 W	2·9 N	9·1 W	1·0 S	12·7 W	0·9 S	2·7 W	0·4 S	1·9 W	9·8 S	4·0 E	4·9 N	4·3 E	1·7 N	1·2 E
20	4·3 N	3·0 W	10·4 N	0·3 E	5·5 N	8·9 W	1·6 N	5·4 W	0·4 S	6·6 W	0·9 N	9·9 W	0·3 S	12·9 W	1·2 N	7·9 W	0·5 N	1·5 W	8·3 S	3·6 E	3·8 N	3·4 E	6·7 N	1·3 W
21	0·0	3·7 E	4·8 N	0·7 W	5·0 N	8·0 W	1·7 N	6·1 W	1·3 S	5·5 W	1·9 N	11·0 W	0·5 N	15·7 W	3·0 N	10·0 W	0·5 S	2·4 W	6·4 S	5·3 E	2·7 N	1·8 E	7·6 N	2·2 W
22	6·7 N	0·5 W	3·1 N	1·9 W	5·7 N	6·1 W	2·0 N	5·5 W	1·3 S	6·2 W	0·5 N	8·5 W	0·3 S	25·7 W	1·3 N	11·3 W	2·0 N	2·1 W	3·7 S	1·1 E	2·3 N	1·9 E	12·1 N	3,4 W
23	13·7 N	4·1 W	5·7 N	4·5 W	6·4 N	6·5 W	5·1 N	7·0 W	0·9 N	7·0 W	3·9 S	5·1 W	6·5 S	21·6 W	1·4 N	17·2 W	3·2 N	2·7 W	2·0 S	2·0 W	6·2 N	2·0 E	7·4 N	1·9 W
24	7·0 N	1·5 W	9·6 N	5·6 W	4·5 N	8·1 W	0·9 N	8·6 W	2·4 N	7·8 W	7·5 S	2·5 W	5·8 S	20·6 W	0·7 N	18·6 W	4·2 N	3·3 W	0·0	2·4 W	2·1 N	4·6 E	6·7 N	2·3 E
25	4·5 N	0·4 E	9·3 N	5·0 W	2·8 N	6·6 W	1·7 N	8·4 W	9·2 N	7·3 W	4·1 S	5·9 W	6·4 S	15·6 W	0·3 N	19·7 W	4·0 N	7·9 W	5·2 N	3·9 W	4·8 N	0·9 E	5·5 N	2·0 E
26	1·4 N	0·1 W	0·0	2·6 W	4·6 N	6·7 W	4·6 N	9·0 W	0·7 S	7·5 W	7·0 S	3·5 W	5·9 S	13·2 W	2·1 N	11·8 W	3·7 N	9·0 W	3·5 N	2·5 W	11·2 N	4·3 E	8·7 N	0·9 E
27	0·7 N	3·4 W	2·0 N	5·5 W	4·7 N	6·1 W	0·8 N	7·5 W	3·4 S	5·9 W	8·3 S	4·1 W	5·5 S	14·0 W	3·6 S	2·3 W	3·0 N	6·9 W	3·7 N	2·5 W	0·9 N	15·8 E	10·3 N	0·8 W
28	11·7 N	6·3 W	10·0 N	5·5 W	0·4 N	2·6 W	1·9 N	6·8 W	1·4 S	6·5 W	9·3 S	0·7 E	6·3 S	11·8 W	0·1 S	8·4 W	1·3 N	4·6 W	2·5 N	0·6 W	8·5 N	8·1 E	7·4 N	2·8 W
29	18·3 N	7·4 W			4·0 N	8·1 W	4·1 N	5·8 W	0·8 S	7·4 W	12·3 S	0·8 E	6·1 S	10·5 W	0·2 N	8·0 W	2·6 N	4·7 W	3·4 N	1·3 W	6·3 N	0·6 W	8·9 N	3·9 W
30	16·7 N	6·6 W			10·4 N	9·6 W	4·9 N	6·8 W	1·5 N	8·4 W	7·9 S	1·4 W	7·0 S	8·2 W	0·7 S	9·2 W	3·4 N	3·8 W	9·3 N	2·8 W	5·6 N	0·8 E	9·6 N	3·7 W
31	15·1 N	5·3 W			11·2 N	8·6 W			1·8 N	9·7 W			5·1 S	8·9 W	0·5 S	9·8 W			6·0 N	0·2 W			9·8 N	2·7 W
Monthly Mean	6·5 N	2·4 W	8·3 N	3·4 W	6·6 N	6·0 W	3·1 N	6·2 W	0·4 S	6·3 W	2·1 S	7·0 W	4·8 S	13·8 W	1·1 S	10·7 W	0·1 N	5·5 W	1·5 N	0·4 W	4·1 N	2·1 E	5·8 N	0·8 E
Annual Variation	4·2 N	2·5 E	6·0 N	1·5 E	4·3 N	1·1 W	0·8 N	1·3 W	2·7 S	1·4 W	4·4 S	2·1 W	7·1 S	8·9 W	3·4 S	5·8 W	2·2 S	0·6 W	0·8 S	4·5 E	1·8 N	7·0 E	3·5 N	5·7 E

The Velocities of the Mean Components for the year are 2·3 N and 4·9 W.

Velocity of Wind, 1905.

Robinson Beckley's Anemograph.

TABLE VIII.—*Mean velocity of the wind, in miles per hour, without regard to the direction from which it blew, for each day of Bombay Civil Time; also the Mean Monthly Velocity, and its variation from the Mean of the year.*

1905. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	7·8	**16·0**	13·0	**13·5**	9·0	9·6	11·7	13·1	5·9	8·4	6·2	7·4
2	**6·2**	11·6	12·4	11·7	8·5	9·9	16·3	15·4	6·0	8·6	**5·3**	6·6
3	7·3	6·8	13·2	9·0	**11·2**	10·7	16·7	14·3	5·5	6·8	7·7	**6·2**
4	8·5	**4·1**	12·0	7·2	9·0	9·3	19·2	13·2	**4·8**	7·5	11·4	8·5
5	11·5	12·1	8·1	6·6	6·9	**6·4**	19·9	11·9	10·5	4·9	10·5	8·2
6	7·5	15·7	7·9	8·3	**6·0**	7·2	23·1	14·0	11·6	7·2	6·2	7·9
7	8·2	14·8	8·4	7·9	6·1	7·5	16·1	15·9	**13·7**	8·8	8·1	8·0
8	8·7	15·0	9·8	6·9	6·7	8·4	16·7	15·8	11·1	6·0	8·3	9·3
9	6·7	13·4	10·0	6·6	7·3	8·0	11·7	12·2	10·6	6·1	8·9	9·2
10	8·0	13·6	9·7	7·5	9·2	8·5	12·7	13·1	7·8	**4·6**	7·5	10·9
11	9·2	10·1	9·2	9·0	8·3	8·8	12·1	16·2	10·0	5·3	7·2	9·8
12	9·8	11·5	6·2	9·3	9·2	8·6	14·1	15·6	8·7	6·8	8·0	9·1
13	8·8	9·7	5·9	8·5	7·6	7·7	13·9	11·6	9·0	7·6	5·9	7·9
14	7·9	9·3	10·3	6·7	9·0	7·7	13·7	9·7	11·6	8·2	6·0	9·5
15	7·0	8·6	14·1	**6·1**	7·7	10·5	12·7	6·6	9·6	8·5	8·5	9·0
16	7·0	9·1	13·7	7·4	8·0	13·0	11·0	7·0	8·1	7·1	10·6	7·5
17	6·5	12·3	13·4	11·0	6·5	11·7	**9·6**	6·3	5·5	7·0	10·8	8·6
18	8·4	15·4	7·9	6·9	8·2	9·8	10·5	**5·0**	5·8	7·0	10·6	7·5
19	12·0	12·8	10·2	7·8	8·0	9·7	12·9	7·3	5·8	**12·0**	11·0	7·0
20	7·4	12·1	11·5	7·2	7·0	10·0	13·0	8·2	6·1	10·3	9·5	9·0
21	8·0	7·1	10·7	6·6	6·0	11·4	16·0	10·6	6·7	9·2	8·8	9·3
22	10·2	5·6	10·8	6·6	6·5	8·6	**26·0**	11·6	5·6	6·6	8·0	**13·1**
23	14·7	7·7	10·0	9·4	7·3	7·7	22·9	17·5	6·5	5·8	8·7	8·5
24	9·5	11·6	9·5	11·7	8·6	8·9	21·7	19·1	7·0	6·4	12·5	10·7
25	8·0	11·3	9·1	11·5	7·7	7·5	16·8	**19·7**	9·2	8·6	6·8	9·5
26	6·4	4·2	9·5	10·2	7·7	10·5	14·6	12·4	9·7	7·3	12·7	10·4
27	8·2	7·9	8·5	7·7	7·0	**13·9**	15·0	6·9	7·9	8·1	**17·3**	12·0
28	14·6	12·0	**4·2**	7·7	6·9	11·4	13·6	8·5	5·7	6·5	12·1	9·0
29	**20·6**		9·2	9·0	7·6	13·2	12·4	8·0	5·9	8·1	8·5	10·8
30	18·3		14·6	9·1	8·7	10·3	10·9	9·3	6·7	11·0	8·0	12·5
31	16·7		**15·1**		10·0		10·4	9·9		7·7		11·1
Monthly Mean.	9·7	10·8	10·3	8·5	7·9	9·6	**15·1**	11·8	8·0	**7·6**	9·1	9·2
Annual Variation ...	−0·1	+1·0	+0·5	−1·3	−1·9	−0·2	+5·3	+2·0	−1·8	−2·2	−0·7	−0·6

	Miles.
The mean velocity for June to August	12·2
The mean velocity for September to May	9·0
The mean velocity for the year	9·8
The greatest monthly mean (that of July)	15·1
The least monthly mean (that of October)	7·6
Difference =	7·5
The greatest mean daily velocity of wind in the year (that of 22nd July) was ...	26·0
The least do. do. do. (that of 4th February) was ...	4·1
Difference =	21·9

Velocity of Wind, 1905.

Dines' Anemograph.

TABLE VIIIA.—*Mean Velocity of the Wind, in miles per hour, for each day of Bombay Civil Time; also the Mean Monthly Velocity, and its variation from the Mean of the year.*

1905. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	5·5	**11·5**	9·6	**10·1**	7·0	6·6	8·6	8·8	4·5	6·1	4·5	5·1
2	4·7	8·2	8·9	8·7	6·5	6·5	11·2	10·5	4·4	6·5	**4·0**	**4·5**
3	5·5	4·8	9·5	7·0	**8·6**	7·2	11·6	9·8	3·8	5·0	5·3	4·5
4	6·5	**3·1**	8·6	5·5	6·9	6·4	13·2	9·0	**3·6**	5·9	7·8	6·0
5	8·4	8·9	6·0	5·4	5·2	**4·4**	13·7	8·1	7·2	**3·8**	7·2	5·7
6	5·5	11·5	6·0	6·6	4·7	5·5	15·9	9·5	8·0	5·4	4·0	5·7
7	6·1	10·7	6·4	6·2	4·8	5·3	11·0	10·5	**9·4**	6·2	5·6	5·4
8	6·3	11·0	7·7	5·4	5·2	5·7	11·2	10·6	7·5	4·4	5·8	6·0
9	5·2	9·5	7·9	5·7	5·6	5·4	7·8	7·9	7·2	4·5	5·9	6·4
10	5·9	9·7	7·6	5·9	7·1	6·1	8·6	8·7	5·6	4·5	5·1	7·6
11	7·0	7·2	7·1	7·0	6·6	6·4	8·3	11·0	7·8	3·9	5·0	6·7
12	7·5	8·6	4·6	7·7	7·3	6·2	10·1	10·5	6·5	4·6	5·6	6·2
13	6·6	7·1	4·2	6·9	5·8	5·4	9·6	7·8	6·2	5·3	4·2	5·2
14	5·9	6·8	7·9	5·6	6·8	5·3	9·4	6·6	7·7	5·6	4·2	6·6
15	5·2	6·4	10·5	**4·6**	5·8	7·5	8·5	4·6	6·3	6·1	5·9	6·2
16	5·2	7·2	10·9	5·8	6·1	8·7	7·5	5·0	5·6	5·1	7·1	5·6
17	4·7	9·0	10·4	8·2	4·8	7·7	**6·7**	4·7	4·0	5·2	7·5	6·0
18	6·3	11·0	6·4	5·4	6·0	6·5	7·3	**4·1**	4·6	5·1	7·4	5·2
19	8·7	9·1	7·9	6·1	6·0	6·8	8·7	5·5	4·4	**9·5**	7·5	4·7
20	5·5	8·7	8·7	5·6	5·3	6·8	8·9	5·8	4·4	7·7	6·5	6·2
21	6·2	5·1	8·5	5·2	**4·5**	7·7	10·9	7·5	5·0	7·1	6·4	6·7
22	7·7	4·1	8·6	5·6	4·7	5·8	**17·6**	8·2	4·2	4·7	5·8	**9·5**
23	10·7	5·5	8·1	7·0	5·7	5·5	15·6	11·9	4·7	4·2	6·4	6·0
24	7·0	8·6	7·5	9·0	6·7	6·5	14·7	12·8	5·2	4·7	8·7	7·5
25	5·8	8·3	7·1	8·0	5·7	5·2	11·5	**13·4**	6·7	5·6	4·7	6·5
26	**4·5**	3·2	7·1	7·9	5·4	7·9	10·2	8·5	6·8	5·0	9·0	7·1
27	6·0	5·9	6·9	5·9	5·3	10·6	10·2	4·6	5·6	5·7	**12·6**	8·5
28	10·9	9·1	**3·7**	5·8	5·0	9·4	9·5	5·7	4·2	4·5	8·3	6·2
29	**15·2**		7·6	6·8	5·8	**11·1**	8·7	5·4	4·4	5·6	5·8	7·3
30	13·7		11·5	7·1	6·5	8·6	7·8	6·3	4·7	7·7	5·5	8·4
31	12·2		**11·7**		6·9		7·1	6·7		5·3		7·6
Monthly Mean.	7·2	7·8	7·9	6·6	6·0	6·8	**10·4**	8·1	5·7	**5·5**	6·3	6·4
Annual Variation ...	+0·1	+0·7	+0·8	−0·5	−1·1	−0·3	+3·3	+1·0	−1·4	−1·6	−0·8	−0·7

	Miles.
The mean velocity for June to August	8·4
The mean velocity for September to May	6·6
The mean velocity for the year	7·1
The greatest monthly mean (that of July)	10·4
The least monthly mean (that of October)	5·5
Difference =	4·9
The greatest mean daily velocity of wind in the year (that of 22nd July) was ...	17·6
The least do. do. do. (that of 4th February) was ...	3·1
Difference =	14·5

Aggregate and Mean Velocities and Relative Frequency of Different Winds, 1905.

TABLE IX.—*Showing, for the year 1905, the sums of the Velocities, and the Mean Velocities, in miles per hour, of the Winds which blew in each Month, from each of the sixteen Principal Directions: and also the number of hourly Observations which those sums comprise; the latter numbers indicating the Relative Frequency of the same Wind (as to direction) in the several Months, and of different Winds during the same Month.*

1905.	N.			N.N.E.			N.E.			E.N.E.			E.			E.S.E.			S.E.			S.S.E.		
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocities.	Sum of Velocity.	Number of Observations.	Mean Velocity.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.
January ...	1,040	114	9·1	289	54	5·4	508	75	6·8	476	64	7·4	229	30	7·6	36	5	7·2	31	4	7·7	12	2	6·0
February ...	1,112	127	8·8	361	51	7·1	376	47	8·0	97	14	6·9	79	9	8·8	17	4	4·2	36	6	6·0	4	1	4·0
March ...	444	67	6·6	226	38	5·9	169	29	5·8	56	9	6·2	14	3	4·7	10	2	5·0	0	0	0·0	23	4	5·7
April ...	199	32	6·2	48	9	5·3	86	16	5·4	41	7	5·9	4	1	4·0	45	11	4·1	39	6	6·5	78	13	6·0
May ...	35	8	4·4	3	1	3·0	30	7	4·3	0	0	0·0	0	0	0·0	5	1	5·0	18	2	9·0	85	11	7·7
June ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	8	1	8·0	43	4	10·7	493	34	14·5
July ...	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	0	0	0·0	11	1	11·0	24	2	12·0
August ...	9	1	9·0	10	3	3·3	8	1	8·0	8	1	8·0	62	8	7·7	55	7	7·9	74	13	5·7	60	9	6·7
September ...	83	12	6·9	12	3	4·0	64	13	4·9	51	9	5·7	117	18	6·5	178	24	7·4	64	11	5·8	82	13	6·3
October ...	294	52	5·7	155	22	7·0	383	60	6·4	358	56	6·4	390	50	7·8	369	45	8·2	265	29	9·1	402	50	8·0
November ...	437	63	6·9	386	49	7·9	884	99	8·9	1,060	103	10·3	996	98	10·2	379	37	10·2	56	11	5·1	25	5	5·0
December ...	704	92	7·7	202	32	6·3	664	90	7·4	1,777	196	9·1	254	29	8·8	25	5	5·0	11	2	5·5	12	2	6·0
Year ...	4,357	568	7·7	1,692	262	6·5	3,172	437	7·3	3,924	459	8·5	2,145	246	8·7	1,127	142	7·9	648	89	7·3	1,300	146	8·9

1905.	S			S.S.W.			S.W.			W.S.W.			W.			W.N.W.			N.W.			N.N.W.			Number of Obser. vations.		Number of hours.
Month.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Sum of Velocities.	Number of Observations.	Mean Velocity.	Calm.	Variable.	Record lost.
	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.	Miles.		Miles.			
January ...	5	1	5·0	6	1	6·0	24	6	4·0	32	4	8·0	268	32	8·4	860	88	9·8	1,780	148	12·0	1,610	116	13·9	...	...	...
February ...	6	1	6·0	59	18	3·3	8	2	4·0	60	9	6·7	133	23	5·8	290	39	7·4	1,927	141	13·7	2,668	179	14·9	1	...	...
March ...	0	0	0·0	0	0	0·0	12	2	6·0	11	3	3·7	286	38	7·5	2,022	175	11·6	2,897	244	11·9	1,470	126	11·7	4	...	...
April ...	24	5	4·8	23	8	2·9	99	19	5·2	170	31	5·5	977	111	8·8	2,641	268	9·8	1,267	137	9·2	347	37	9·4	9	...	...
May ...	239	25	9·6	374	65	5·8	312	47	6·6	866	129	6·7	2,043	217	9·4	1,396	153	9·1	361	59	6·1	78	13	6·0	6	...	...
June ...	484	39	12·4	295	36	8·2	583	82	7·1	1,215	138	8·8	2,376	231	10·3	1,229	133	9·2	136	18	7·6	20	4	5·0	...	...	...
July ...	27	2	13·5	12	2	6·0	1,149	96	12·0	7,056	483	14·6	2,868	152	18·9	83	6	13·8	0	0	0·0	0	0	0·0	...	...	...
August ...	8	2	4·0	11	3	3·7	59	10	5·9	2,655	215	12·3	4,895	384	12·7	818	80	10·2	36	4	9·0	17	3	5·7	...	...	...
September ...	209	19	11·0	122	22	5·5	262	39	6·7	638	81	7·9	2,017	191	10·6	1,372	187	7·3	416	69	6·0	44	9	4·9	...	...	...
October ...	250	27	9·3	148	25	5·9	41	8	5·1	54	12	4·5	361	44	8·2	732	86	8·5	956	110	8·7	469	63	7·4	5	...	...
November ...	0	0	0·0	0	0	0·0	5	1	5·0	23	3	7·7	262	33	7·9	499	62	8·0	958	95	10·1	551	61	9·0	...	...	..
December ...	0	0	0·0	0	0	0·0	0	0	0·0	81	14	5·8	94	12	7·8	284	38	7·5	1,254	121	10·4	1,462	111	13·2	...	...	...
Year ...	1,252	121	10·3	1,050	180	5·8	2,554	312	8·2	12,861	1,122	11·5	16,580	1,468	11·3	12,226	1,315	9·3	11,988	1,146	10·5	8,736	722	12·1	25	...	...

Temperature of the Ground, 1905.

TABLE X.—*Showing for each Month, the Mean Temperature of the Ground and its Annual Variation, at the respective depths of 1, 9, 20, 60 and 132 inches below the surface.*

DEPTH.	1 INCH.		9 INCHES.		20 INCHES.		60 INCHES.		132 INCHES.	
Month.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.	Mean Temperature.	Excess over the yearly Mean.
	°	°	°	°	°	°	°	°	°	°
January ...	75·1	−6·4	77·9	−5·2	82·7	−3·4	85·1	−1·5	85·0	−0·4
February ...	73·2	−8·3	75·1	−8·0	79·6	−6·5	83·5	−3·1	84·2	−1·2
March ...	77·9	−3·6	79·2	−3·9	82·0	−4·1	83·2	−3·4	83·8	−1·6
April ...	81·4	−0·1	82·3	−0·8	84·6	−1·5	84·6	−2·0	83·8	−1·6
May ...	87·0	+5·5	87·4	+4·3	89·1	+3·0	86·9	+0·3	84·6	−0·8
June ...	87·9	+6·4	89·0	+5·9	91·2	+5·1	89·2	+2·6	85·7	+0·3
July ...	83·9	+2·4	86·3	+3·2	89·4	+3·3	89·4	+2·8	86·4	+1·0
August ...	83·3	+1·8	85·5	+2·4	88·4	+2·3	88·5	+1·9	86·6	+1·2
September ...	82·9	+1·4	84·8	+1·7	87·6	+1·5	87·8	+1·2	86·5	+1·1
October ...	84·8	+3·3	85·7	+2·6	87·9	+1·8	87·6	+1·0	86·3	+0·9
November ...	82·7	+1·2	84·0	+0·9	87·1	+1·0	87·5	+0·9	86·2	+0·8
December ...	77·8	−3·7	79·9	−3·2	84·1	−2·0	86·4	−0·2	85·8	+0·4
Year ...	81·5		83·1		86·1		86·6		85·4	

Extent of Cloudy Sky, 1905.

TABLE XI.—*Means of Estimations made at 6, 10, 14, 16 and 22 hours daily, the whole sky being reckoned as 10.*

1905. Date.	MONTH. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 ...	0·2	0·2	6·2	...	0·4	2·2	**10·0**	9·0	3·2	2·2	...	...
2 ...	1·0	...	6·0	...	0·6	3·6	8·6	8·8	4·2	2·4	...	2·0
3 ...	0·6	...	5·8	0.2	**0·2**	**2·0**	8·8	8·4	5·8	1·2	...	6·0
4 ...	2·2	1·6	5·8	...	0·6	3·4	8·4	8·0	7·4	4·4	...	0·2
5 ...	**7·4**	2·2	6·2	...	0·2	5·2	10·0	8·4	5·0	4·6	...	**7·6**
6 ...	7·0	...	0·2	**6·6**	0·2	3·0	9·8	8·4	8·6	1·4	1·6	...
7 ...	7·0	...	0·2	2·4	2·0	4·0	10·0	**10·0**	8·2	2·8	...	4·2
8 ...	4·0	...	1·2	0·4	0·8	4·8	10·0	10·0	**10·0**	1·8	...	0·6
9 ...	...	...	0·6	2·6	1·2	2·4	9·0	8·4	10·0	...	...	3·2
10 ...	...	0·4	2·0	...	1·8	5·4	8·6	8·4	9·6	0·2	...	1·4
11 ...	...	...	0·2	1·0	2·6	4·4	8·4	9·8	10·0	2·8	3·6	3·0
12 ...	0·4	0·2	...	2·4	2·2	7·0	8·8	9·2	8·0	6·4	4·8	0·2
13 ...	2·4	1·6	1·0	5·4	5·4	2·8	9·2	8·4	10·0	7·4	8·6	1·6
14 ...	...	1·6	0.2	1·6	2·4	3·6	7·6	8·6	4·8	6·6	8·4	...
15 ...	0·6	1·8	3·4	1·2	4·2	5·8	9·0	8·6	3·6	7·4	8·0	...
16 ...	...	4·2	3·0	0·2	2·0	7·0	8·6	7·6	8·6	7·4	1·0	...
17 ...	2·0	...	1·6	...	8·2	8·0	8·6	10·0	6·4	8·6	0·4	...
18 ...	1·0	...	6·4	0.2	**9·4**	4·6	8·0	**8·6**	**1·2**	**9·6**	1·0	0·4
19 ...	...	...	**7·0**	1.2	6·8	6·0	6·6	6·8	1·8	9·6	...	...
20 ...	...	1·2	1·2	1.6	2·0	3·0	6·8	8.0	1·2	6·8	1·0	...
21 ...	2·6	...	1·4	3·4	2·2	5·4	10·0	7·2	4·2	7·2	1·0	0·2
22 ...	5·0	...	1·8	6·2	4·0	5·6	10·0	8·0	5·2	1·2	0·6	...
23 ...	3·0	...	0·6	3·6	3·0	6·0	10·0	9·2	6·0	1·2	1·4	...
24 ...	3·4	...	...	3·0	3·2	6·2	10·0	7·2	6·8	1·8	6·2	...
25 ...	...	1·2	0·6	5·8	5·0	6·4	8·2	7·2	5·8	2·8	**10·0**	2·6
26 ...	...	5·6	1·4	2·0	4·0	9·8	9·6	9·6	7·2	...	10·0	3·8
27 ...	0·4	4·2	1·8	2·6	4·2	9·4	7·8	7·0	4·8	1·8	9·6	0·6
28 ...	0·8	**6·4**	2·4	1·8	4·2	9·0	10·0	8·2	2·2	1·2	8·2	1·8
29 ...	0·6		1·0	1·2	3·6	7·6	10·0	7·4	3·4	2·0	3·0	0·6
30 ...	0·4		1·8	1·4	3·0	**10·0**	10·0	7·2	4·0	...	0·4	0·4
31 ...	0·4		...		3·4		**6·4**	**4·0**		...		0·8
Monthly Mean .	1·7	**1·2**	2·3	1·9	3·0	5·5	**8·9**	8·2	5·9	3·6	3·0	1·3
Annual Variation ...	—2·2	—2·7	—1·6	—2·0	—0·9	+1·6	+5·0	+4·3	+2·0	—0.3	—0·9	—2·6

For the days which have no entry, 0·0 is to be understood.

Mean of the months from January to April, November and December ... ... 1·9

Mean of the months from May to October ... ... 5·8

Mean for the year ... ... 3·9

Rainfall 1905.

TABLE XII.—*Total fall of rain (in inches) as measured by Newman's Gauge, placed 4½ feet above the ground.*

1905. Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Inches.	Inches.	Inches.	Inches.	Inches	Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches.
1	...	...	...	...	...	...	4·00	...	0·06	...	...	...
2	...	...	...	...	...	0·02	0·66	0·16	...	...	...	...
3	...	...	...	...	...	...	0·80	0·23	...	...	...	...
4	...	...	...	...	...	...	0·85	0·06	0·21	0·04	...	...
5	...	...	...	...	...	0·06	1·89	0·07	0·08	...	...	...
6	...	...	...	...	...	0·01	0·03	0·35	0·33	...	...	...
7	...	...	...	...	...	...	0·04	0·04	0·30	...	...	...
8	...	...	...	...	...	...	0·07	0·20	2·20	...	...	...
9	...	...	...	...	...	...	...	...	0·41	...	...	...
10	...	...	...	...	...	...	0·02	0·01	0·39	...	...	...
11	...	...	...	...	...	...	0·06	0·22	0·53	...	...	...
12	...	...	...	...	...	0·06	0·12	0·06	...	...	...	...
13	...	...	...	...	...	...	0·37	0·02	1·15	...	...	...
14	...	...	...	...	...	0·02	...	0·16	0·01	0·03	...	...
15	...	...	...	...	...	...	0·44	...	...	...	...	...
16	...	0·03	...	...	...	...	0·12	...	0·21	...	...	...
17	...	...	...	...	...	0·20	0·48	0·25	...	0·03	...	...
18	...	...	...	...	...	0·06	0·25	0·75	...	...	...	...
19	...	...	...	...	...	0·01	0·25	...	...	0·01	...	...
20	...	...	...	...	...	...	0·17	...	...	0·09	...	...
21	...	...	...	...	...	...	0·44	0·05	...	...	...	...
22	...	...	...	...	...	...	1·27	0·04	0·07	...	...	...
23	...	...	...	...	...	0·12	1·01	0·34	0·21	...	...	...
24	...	...	...	...	...	0·07	0·82	0·79	...	...	...	...
25	...	...	...	...	...	0·09	0·12	...	...	...	0·03	...
26	...	...	...	...	...	3·41	0·23	0·02	...	...	...	...
27	...	...	...	...	...	0·18	0·17	0·11	...	...	0·79	...
28	...	...	...	...	...	0·07	0·39	0·27	...	...	0·22	...
29	...	...		...	...	...	0·18	0·11	...	...	...	...
30	...	...		...	...	2·15	0·05	0·04	...	...	...	...
31	...	...		...	...		...	...		...		...
Monthly Total	...	0·08	...	...	...	6·53	15·30	4·35	6·16	0·20	1.04	...
Number of rainy days	...	1	...	...	...	15	28	23	14	5	3	...

Total fall of rain in the year ... ... 33·66 inches.
Total number of rainy days in the year 89
The greatest daily fall of rain in the year (that of 1st July) was ... ... 4·00 inches.
No rain fell in the months of January, March, April, May and December nor on any of the days left blank in the above table.

TABLE XIII.—*Five-day Means, 1905.*

Number of Five-day Period.	Barometric Pressure.	Temperature of the air.	Pressure of Vapour.	Additional Capacity of the air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.	Number of Five-day Period.	Barometric Pressure.	Temperature of the air.	Pressure of Vapour.	Additional Capacity of the air.	* Rainfall.	North or South Component of Wind.	East or West Component of Wind.
	Inches.	°	Inches.	Inches.	Inches.	Miles.	Miles.		Inches.	°	Inches.	Inches.	Inches.	Miles.	Miles.
1 ...	**30·052**	73·5	0·591	0·238	...	4·9 N.	1·2 W.	38 ...	29·646	82·6	0·946	0·170	2·03	4·3 S.	16·6 W.
2 ...	29·996	73·6	·630	·206	...	5·4 N.	0·9 W.	39 ...	·736	83·2	·928	·209	0·57	6·3 S.	11·4 W.
3 ...	·955	72·6	·631	·173	...	5·9 N.	3·4 W.	40 ...	·682	82·3	·934	·171	1·54	3·1 S.	10·6 W.
4 ...	·960	72·9	·578	·236	...	5·0 N.	3·1 W.	41 ...	**·621**	80·0	·899	·126	3·71	2·5 S.	**19·3 W.**
5 ...	·941	70·8	·519	·243	...	6·4 N.	0·4 W.	42 ...	·682	81·0	·914	·145	1·09	6·0 S.	13·0 W.
6 ...	·952	71·4	·533	·244	...	9·8 N.	4·8 W.	43 ...	·780	81·4	·912	·160	0·44	3·4 S.	11·7 W.
7 ...	·972	68·3	·422	·279	...	8·1 N.	2·9 W.	44 ...	·779	81·0	·900	·159	0·72	2·2 S.	13·7 W.
8 ...	·955	**67·1**	**·366**	·304	...	**12·3 N.**	4·1 W.	45 ...	·744	81·3	·895	·174	0·31	4·4 S.	12·8 W.
9 ...	·966	69·8	·436	·297	...	9·5 N.	3·3 W.	46 ...	·729	80·6	·895	·152	1·16	0·0	4·3 W.
10 ...	·936	69·7	·481	·249	0·08	8·6 N.	3·3 W.	47 ...	·726	81·5	·886	·190	0·43	1·2 N.	9·8 W.
11 ...	·919	71·9	·532	·257	...	6·7 N.	2·5 W.	48 ...	·709	81·0	·898	·160	1·19	0·1 S.	12·2 W.
12 ...	·979	72·8	·604	·208	...	6·3 N.	5·0 W.	49 ...	·749	82·0	·883	·210	0·21	0·8 N.	7·4 W.
13 ...	·988	73·2	·547	·277	...	8·9 N.	3·8 W.	50 ...	·727	81·2	·869	·199	0·92	0·8 S.	8·5 W.
14 ...	·931	74·0	·667	·176	...	6·6 N.	5·4 W.	51 ...	·690	79·4	·892	**·111**	3·53	4·3 S.	6·8 W.
15 ...	·842	76·8	·712	·215	...	6·7 N.	5·8 W.	52 ...	·827	79·7	·854	·163	1·37	0·6 S.	5·3 W.
16 ...	·864	76·0	·662	·240	...	5·9 N.	7·2 W.	53 ...	·850	80·4	·823	·219	0·07	0·3 N.	1·8 W.
17 ...	·837	75·8	·688	·205	...	4·8 N.	6·8 W.	54 ...	·801	81·5	·843	·234	0·21	3·6 N.	6·0 W.
18 ...	·897	75·8	·602	·290	...	6·1 N.	7·0 W.	55 ...	·819	81·1	·901	·162	...	3·9 N.	4·4 W.
19 ...	·856	76·2	·622	·286	...	5·3 N.	5·0 W.	56 ...	·866	84·2	·897	·282	0·04	4·2 N.	0·9 W.
20 ...	·898	77·1	·738	·196	...	1·2 N.	5·8 W.	57 ...	·820	83·7	·899	·261	...	1·8 N.	0·0
21 ...	·865	78·0	·768	·195	...	2·7 N.	6·6 W.	58 ...	·772	83·2	·893	·248	0·06	0·3 N.	0·9 E.
22 ...	·818	80·0	·826	·198	...	2·1 N.	5·6 W.	59 ...	·774	81·1	·856	·207	0·10	6·0 S.	2·9 E.
23 ...	·852	79·6	·817	·196	...	3·5 N.	7·1 W.	60 ...	·876	81·6	·885	·195	...	2·1 N.	2·7 W.
24 ...	·875	80·3	·828	·211	...	3·3 N.	7·2 W.	61 ...	·870	81·1	·814	·251	...	4·5 N.	0·8 W.
25 ...	·835	81·9	·891	·202	...	3·8 N.	7·2 W.	62 ...	·921	81·4	·812	·265	...	4·4 N.	2·0 W.
26 ...	·809	83·4	·946	·199	...	1·2 S.	5·3 W.	63 ...	·949	81·5	·758	·326	...	3·7 N.	0·6 E.
27 ...	·748	84·8	·937	·261	...	5·1 S.	4·3 W.	64 ...	·919	81·8	·769	·322	...	3·2 N.	2·4 E.
28 ...	·724	85·1	·936	·273	...	0·3 N.	6·5 W.	65 ...	·945	80·9	·649	**·415**	...	3·7 N.	3·8 E.
29 ...	·711	85·3	·917	·303	...	0·2 N.	6·8 W.	66 ...	·962	78·9	·656	·341	0·03	5·3 N.	2·7 E.
30 ...	·770	85·7	·899	·336	...	1·0 S.	7·1 W.	67 ...	·988	76·5	·693	·227	1·01	5·1 N.	**5·3 E.**
31 ...	·771	86·5	·927	·337	0·02	0·8 N.	9·6 W.	68 ...	·940	77·0	·624	·309	...	3·7 N.	0·9 E.
32 ...	·746	**86·5**	·932	·332	0·07	2·4 S.	6·4 W.	69 ...	·899	74·6	·506	·361	...	4·6 N.	3·8 E.
33 ...	·747	86·0	·893	·354	0·08	2·0 N.	7·4 W.	70 ...	·940	75·6	·578	·317	...	5·6 N.	2·2 E.
34 ...	·702	86·3	**·952**	·305	0·27	1·5 S.	10·4 W.	71 ...	·947	75·8	·682	·216	...	4·0 N.	0·4 E.
35 ...	·676	86·2	·941	·312	0·19	1·6 S.	7·4 W.	72 ...	·980	74·1	·572	·278	...	8·1 N.	0·0
36 ...	·651	82·0	·929	·166	3·75	**8·2 S.**	2·4 W.	73 ...	·939	73·6	·583	·249	...	9·2 N.	2·8 W.
37 ...	·685	81·1	·928	·136	**8·46**	6·5 S.	11·4 W.								

* Five day sums, *not means.*

TABLES OF DISTURBANCES

OF

MILNE'S SEISMOGRAPH AND COLABA SEISMOGRAPHS,

1902 TO 1905.

TABLE I.—List of Principal Disturbances registered by Milne's Seismograph at Colaba, Bombay.

1902.

Observatory Number.	Date.	Time of Disturbance in G. M. T. Beginning.	Maximum.	End.	Amplitude or half the complete range of Maximum motion.	Remarks.
		H. m.	H. m.	H. m.	Millimetres.	
1 ...	1902, January 1 ...	5 47·2	6 17·7	6 54·0	0·9	Sensibility 1 m. m. = 0″·62.
7 ...	„ „ 12 ...	22 36·0	22 57·3	23 32·0	0·9	
14 ...	„ „ 20 ...	1 5·7	1 7·4	1 13·7	0·5	
19 ...	„ „ 24-25 ..	23 39·8	23 51·8	1 34·8	0·9	
22 ...	„ „ 29 ...	1 36·6	1 58·0	2 10·7	1·0	
24 ...	„ „ 30 ...	14 10·1	14 40·5	15 13·5	2·4	
25 ...	„ „ 31 ...	1 51·6	2 21·5	2 53·2	0·8	
39 ...	„ February 9 ...	7 59·8	8 36·7	9 57·4	1 2	
40 ...	„ „ „ ...	10 28·1	11 39·5	12 32·7	0·5	
43 ...	„ „ 13 ...	9 50·2	10 2·9	10 25·7	1·1	
45 ...	„ „ 15 ...	21 39·7	21 41·6	21 51·6	1·1	
48 ...	„ „ 17 ...	0 42·3	2 40·6	3 15·4	0·5	
64 ...	„ „ 24 ...	5 12·0	5 14·4	5 18·0	0·4	
73 ...	„ March 1 ...	0 21·9	0 44·8	1 5·4	0·6	
85 ...	„ „ 5 ...	19 20·7	20 25·8	21 23·1	0·4	
115 ...	„ „ 22 ...	23 26·6	23 33·9	23 56·3	0·2	
124 ...	„ „ 28 ...	9 34·5	10 3·3	10 15·0	0·5	
125 ...	„ „ „ ...	14 54·7	...	16 20·9	...	Lost during shifting time.
140 ...	„ April 7 ...	13 14·9	13 17·0	13 24·6	0·5	
157 ...	„ „ 12 ...	1 12·2	1 37·7	1 47·4	0·2	
177 ...	„ „ 19 ...	2 43·3	3 8·0	5 5·6	1·7	
179 ...	„ „ „ ...	11 6·0	11 26·6	11 34·5	0·4	
185 ...	„ „ 20 ...	12 19·0	12 32·9	12 41·4	0·3	
187 ...	„ „ „ ...	14 5·7	14 17·1	14 41·1	0·4	
191 ...	„ „ 21 ...	17 44·7	18 3·0	18 50·5	1·7	
199 ...	„ May 2 ...	11 51·7	12 10·9	12 38·5	0·4	
204 ...	„ „ 8 ...	2 46·1	2 56·5	3 9·6	0·5	
227 ...	„ „ 25 ...	17 28·1	17 34·9	17 43·1	0·6	
259 ...	„ June 11 ...	5 19·8	6 44·7	8 36·7	2·7	
276 ...	„ „ 16 ...	1 42·5	1 44·7	2 6·5	2·7	
321 ...	„ July 9 ...	3 44·8	3 55·0	4 50·3	1·3	
406 ...	„ August 3 ...	17 6·5	17 15·7	17 39·9	0·3	
437 ...	„ „ 22 ...	3 5·4	...	5 49·7	...	Traces overlap due to intensity of the disturbance, and hence maximum phase cannot be ascertained.
441 ...	„ „ 24 ...	1 56·8	2 0·9	2 25·2	3·0	
471 ...	„ „ 30 ...	21 56·7	22 0·8	23 33·3	4·4	
526 ...	„ September 20 ...	6 34·3	6 37·2	6 59·5	1·0	
530 ...	„ „ 22 ...	1 57·7	2 14·8	3 59·2	2·7	
533 ...	„ „ 23 ...	20 39·3	21 46·9	22 54·3	2·0	
554 ..	„ October 6 ...	9 18·0	9 25·7	10 0·1	1·7	
561 ...	„ „ 15 ...	8 20·3	8 22·8	8 24·1	0·3	
577 ...	„ November 4 ...	11 17·8	11 46·0	12 43·7	3·8	
589 ...	„ „ 20 ...	20 45·0	21 7·9	22 15·6	0·9	Sensibility 1 m. m. = 0″·50.
590 ...	„ „ 21 ...	7 11·5	7 35·8	8 25·8	1·6	
618 ...	„ December 13 ...	0 13·9	0 37·3	1 22·5	0·3	
619 ...	„ „ „ ...	17 11·8	17 19·7	18 2·4	2·5	
625 ...	„ „ 16 ...	5 12·9	5 20·2	5 47·1	3·4	
626 ...	„ „ „ ...	5 55·5	5 59·5	6 13·4	0·3	
642 ...	„ „ 28 ...	1 58·8	2 6·2	3 15·2	1·5	
644 ...	„ „ 30 ...	5 16·3	5 19·5	5 26·0	0·3	

1903.

2 ...	1903, January 4 ...	5 26·6	5 40·0	6 43·4	1·0	Sensibility 1 m. m. = 0″·50.
3 ...	„ „ 5 ...	0 56·4	0 58·5	1 7·0	0·5	
4 ...	„ „ „ ...	22 18·3	22 31·3	22 46·8	0·4	
14 ...	„ „ 14 ...	2 7·9	2 54·9	4 44·7	12·1	
16 ...	„ „ 17 ...	14 24·4	15 9·2	15 14·2	0·5	
26 ...	„ „ 22 ...	0 23·1	0 32·9	0 53·1	0·3	
35 ...	„ „ 24 ...	16 55·8	17 18·2	17 38·2	0·6	

1903—continued.

Observatory Number.	Date.	Time of Disturbance in G. M. T. Beginning.		Maximum.		End.		Amplitude or half the complete range of Maximum motion.	Remarks.
		H.	m.	H.	m.	H.	m.	Millimetres.	
46 ...	1903, February 1 ...	9	47·0	9	54·8	11	9·9	5·2	
55 ...	„ „ 2 ...	11	6·4	11	17·7	11	31·8	0·4	
61 ...	„ „ 5 ...	19	15·4	19	42·2	20	30·2	2·1	
63 ...	„ „ 6 ...	7	32·5	8	2·3	9	8·0	0·9	
81 ...	„ „ 11 ...	16	14·9	16	43·5	17	5·9	1·0	
84 ...	„ „ 12 ...	18	54·6	18	57·5	19	9·5	0·5	
108 ...	„ „ 27 ...	0	51·2	1	7·5	3	22·5	8·6	Sensibility 1 m. m. = 0″·44.
109 ...	„ „ „ ...	3	58·7	4	21·0	4	39·3	0·7	
114 ...	„ „ 28 ...	11	7·3	11	14·7	11	32·6	0·3	
200 ...	„ March 22 ...	14	40·5	14	51·2	...		1·8	End lost in shifting time.
239 ...	„ „ 30 ...	3	38·4	4	2·6	4	19·3	0·6	
354 ...	„ April 25 ...	11	40·7	11	45·7	12	28·2	0·5	
382 ...	„ „ 28—29 ...	23	52·3	0	1·6	0	35·0	3·5	
385 ...	„ „ 29 ...	4	38·8	5	73·5	6	48·0	1·5	
446 ...	„ May 13 ...	6	38·0	7	1·4	8	0·0	0·8	
466 ...	„ „ 17 ...		...	1	5·4	1	44·1	2·3	Commencement masked by tremors.
523 ...	„ June 2 ...	13	34·6	14	8·3	14	41·5	0·8	
533 ...	„ „ 8 ...	5	58·4	6	12·3	6	32·5	0·4	
786 ...	„ August 11 ...	4	48·0	4	51·9	5	21·1	1·4	
794 ...	„ „ 13 ...	16	26·1	16	35·4	16	41·2	0·5	
857 ...	„ September 1 ...	15	12·1	15	22·2	15	30·8	0·3	
874 ...	„ „ 7 ...	7	37·2	7	44·0	7	57·5	0·3	
875 ...	„ „ „ ...	8	3·6	8	15·3	8	23·6	0·4	
879 ...	„ „ 8 ...	5	38·6	5	47·8	6	10·1	0·5	
915 ...	„ „ 25 ...	1	27·9	1	31·1	1	33·6	0·3	
921 ...	„ October 1 ...	22	21·6	22	27·7	23	28·1	1·5	
930 ...	„ „ 10 ...	17	6·6	17	16·1	17	32·9	0·3	
967 ...	„ „ 21 ...	10	1·3	10	27·5	11	8·4	1·2	
973 ...	„ „ 23 ...	2	57·4	3	0·2	3	16·5	0·7	
974 ...	„ „ „ ...	14	10·0	14	25·1	14	29·4	0·3	
997 ...	„ „ 30 ...	4	51·6	5	10·2	5	26·8	0·5	
1008 ...	„ November 10 ...	18	2·8	18	20·3	18	38·9	0·4	
1051 ...	„ „ 26 ...	12	5·5	12	13·5	12	57·9	0·9	
1063 ...	„ December 3 ...	21	33·4	21	40·3	21	50·0	0·8	
1068 ...	„ „ 5 ...	5	56·5	6	2·6	6	18·6	0·5	
1083 ...	„ „ 10 ...	17	7·3	17	13·4	18	31·3	3·0	
1100 ...	„ „ 23 ...	1	21·5	1	35·2	2	22·8	0·5	
1109 ...	„ „ 28 ...	3	7·5	3	19·5	4	4·3	1·6	

1904.

43 ...	1904, January 20 ...	16	12·7	16	42·7	17	14·5	0·9	Sensibility 1 m. m. = 0″·44.
159 ...	„ March 19 ...	6	49·2	7	57·2	8	36·5	1·0	
187 ...	„ „ 31 ...	2	23·6	2	26·1	3	9·9	10·2	
188 ...	„ „ „ ...	5	54·6	5	56·5	6	16·8	3·3	
200 ...	„ April 4 ...	10	11·4	10	58·2	14	23·6	3·5	
203 ...	„ „ 5 ...	10	25·7	10	37·0	11	14·5	2·0	
205 ...	„ „ 9 ...	5	30·0	5	31·0	5	33·4	0·6	
209 ...	„ „ 12 ...	19	34·9	19	44·4	20	12·2	0·5	
232 ...	„ „ 24 ...	7	4·7	7	10·9	7	21·9	0·6	
249 ...	„ May 1 ...	15	40·3	16	6·5	16	36·5	1·5	
313 ...	„ June 24 ...	1	35·3	1	47·0	2	14·8	0·8	
316 ...	„ „ 25 ...	15	7·1	15	34·5	16	41·7	11·1	
319 ...	„ „ „ ...	21	13·0	21	50·4	23	40·7	8·6	
321 ...	„ „ 26 ...	11	20·1	11	22·5	11	51·9	1·2	
325 ...	„ „ 27 ...	0	31·6	1	0·8	1	56·7	3·6	
382 ...	„ July 18 ...	1	27·0	2	0·4	3	10·5	1·5	
395 ...	„ „ 24 ...	11	18·2	11	32·3	11	56·2	1·1	
405 ...	„ „ 27 ...	5	35·6	5	37·6	5	48·4	0·9	
444 ...	„ August 8-9 ...	23	39·5	0	5·3	0	17·9	0·6	
458 ...	„ „ 18 ...	4	58·2	5	16·1	5	40·3	1·8	
476 ...	„ „ 24 ...	21	9·3	21	39·7	22	38·4	2·9	

1904—continued.

Observatory Number.	Date.	Time of disturbance in G. M. T. Beginning. H.	m.	Maximum. H.	m.	End. H.	m.	Amplitude or half the complete range of Maximum motion. Millimetres.	Remarks.
484 ...	1904, August 27-28...	22	20·8	22	53·3	0	39·0	4·1	
497 ...	„ „ 30 ...	11	54·4	12	2·5	12	51·3	3·4	
532 ...	„ September 11 ...	5	56·4	6	5·5	6	47·3	1·9	
573 ...	„ October 3 ...	3	9·0	...		4	42·4	...	Traces overlap due to intensity of the disturbance, and hence maximum phase cannot be ascertained.
591 ...	„ „ 8 ...	18	48·5	19	8·1	19	22·8	0·9	
593 ...	„ „ 9 ...	14	20·6	14	36·0	14	49·0	0·5	
615 ...	„ „ 28 ...	13	58·0	14	25·7	14	46·4	0·8	
623 ...	„ November 6 ...	4	31·5	4	46·5	5	2·8	0·6	
631 ...	„ „ 9 ...	3	35·9	3	42·7	3	48·1	0·4	
652 ...	„ „ 21 ...	4	16·4	4	25·8	4	42·2	0·5	
657 ...	„ „ 23 ...	17	14·8	17	18·3	17	28·0	0·4	
699 ...	„ December 16 ...	7	9·2	7	10·9	7	21·0	0·7	
703 ...	„ „ 19 ...	18	23·8	18	59·5	19	18·4	0·6	
704 ...	„ „ 20 ...	6	12·9	7	25·4	8	17·5	1·4	

1905.

36 ...	1905, January 22 ...	2	52·9	3	21·2	4	18·7	5·0	Sensibility 1 m. m. = 0″·14.
54 ...	„ February 2 ...	21	19·1	21	24·6	21	32·5	0·6	
55 ...	„ „ 4 ...	6	35·3	6	46·3	6	52·8	0·4	
65 ...	„ „ 14 ...	9	7·3	9	40·7	11	36·0	8·6	
68 ...	„ „ 17 ...	11	39·6	11	59·2	13	10·0	3·4	
72 ...	„ „ 19 ...	5	4·3	5	48·7	6	18·8	1·4	
79 ...	„ „ 27 ...	17	54·7	18	41·8	19	22·6	0·7	
87 ...	„ March 4 5 ...	23	39·8	0	18·1	0	57·9	0·9	
97 ...	„ „ 19 ...	0	13·1	1	5·1	2	40·2	3·1	
101 ...	„ „ 22 ...	3	51·9	4	34·6	6	37·1	3·9	
110 ...	„ April 4 ...	0	52·9	...		5	12·5	...	Traces overlap due to intensity of the disturbance, and hence maximum phase cannot be ascertained.
111 ...	„ „ 7 ...	4	25·0	4	38·0	4	48·2	0·6	
132 ...	„ May 23 ...	7	12·7	7	18·8	7	51·4	0·6	Sensibility 1 m. m. = 0″·43.
143 ...	„ June 2 ...	5	56·9	6	20·1	6	29·8	0·6	
154 ...	„ „ 14 ...	12	29·4	12	45·3	13	20·7	0·9	
177 ...	„ July 2 ...	3	52·7	3	53·4	4	3·0	0·5	
191 ...	„ „ 6 ...	16	31·2	17	4·4	18	56·6	2·4	
197 ...	„ „ 9 ...	9	47·0	...		14	7·7	...	Traces overlap due to intensity of the disturbance, and hence maximum phase cannot be ascertained.
202 ...	„ „ 11 ...	8	59·6	9	2·4	9	55·8	2·1	
207 ...	„ „ 14 ...	9	37·8	9	52·8	10	29·4	0·7	
209 ...	„ „ „ ...	22	21·5	22	24·3	22	59·3	0·8	
212 ...	„ „ 16 ...	18	59·5	19	6·1	19	20·9	0·5	
229 ...	„ „ 23 ...	2	53·5	...		9	45·9	...	Traces overlap due to intensity of the disturbance, and hence maximum phase cannot be ascertained.
315 ...	„ September 8 ...	1	52·5	2	28·1	3	22·3	1·0	Sensibility 1 m. m. = 0″·47.
325 ...	„ „ 14 ...	20	4·7	20	29·0	21	7·2	1·5	
326 ...	„ „ 15 ...	6	14·7	6	53·5	9	34·1	12·6	
340 ...	„ „ 26 ...	1	30·1	1	35·8	2	34·7	2·1	
344 ...	„ „ 29 ...	12	3·0	12	35·6	13	23·2	1·0	
366 ...	„ October 19 ...	16	33·6	16	37·0	17	3·0	1·2	
370 ...	„ „ 21 ...	11	23·4	11	27·8	11	36·0	0·5	
371 ...	„ „ 22 ...	9	2·5	9	10·2	9	42·2	0·6	
381 ...	„ November 3 ...	19	16·6	19	29·0	19	32·1	0·3	
385 ...	„ „ 8 ...	22	18·2	22	26·9	23	42·7	1·7	
386 ...	„ „ 9 ...	16	22·7	16	24·7	16	32·3	1·6	
412 ...	„ December 4 ...	7	17·7	7	27·8	8	9·2	0·9	
426 ...	„ „ 10 ...	13	21·6	13	39·2	14	38·8	1·5	
428 ...	„ „ „ ...	18	19·3	18	31·3	19	25·8	0·9	

TABLE II.—List of Principal Disturbances registered by Colaba (E.-W.) Seismograph at Colaba (1902 to 1905).

1902.

Observatory Number.	Date.	Time of Disturbance in G. M. T. Beginning.	Time of Disturbance in G. M. T. Maximum.	Amplitude or half the complete range of Maximum motion.	Remarks.
		H. m.	H. m.	Millimetres.	
1	1902, January 1	...	...	...	Lines intermingled, pen lifted in several places and therefore cannot be tabulated.
2	„ „ 13	...	...	...	Partially recorded due to lifting of pen in several places.
3	„ „ 25	...	...	...	Lines full of tremors and therefore difficult to locate the phases.
4	„ „ 29	...	...	...	Movements very small and therefore difficult to locate the phases exactly.
5	„ „ 30	...	...	...	Do. do.
6	„ „ 31	...	...	...	Do. do.
7	„ February 9	...	...	...	Defective record (lines full of tremors).
8	„ „ 13	...	...	...	Movements very small and hence difficult to locate the phases exactly.
9	„ „ 16	...	...	...	Do. do.
10	„ March 6	...	...	...	Do. do.
11	„ „ 23	...	...	...	Lines full of tremors and hence difficult to locate the phases.
12	„ „ 28	...	...	...	Movements very small and hence difficult to locate the phases exactly.
13	„ April 7	...	...	...	Do. do.
14	„ „ 19	2 44·0	3 48·5	5·2	Sensibility 1 m. m. = 0″·10.
15	„ „ „	...	...	...	Movements very small and hence difficult to locate the phases exactly.
16	„ „ 20	...	...	...	Do. do.
17	„ „ „	...	...	...	Do. do.
18	„ „ 21	...	...	...	Do. do.
19	„ May 2	...	...	...	Do. do.
20	„ „ 25	...	...	...	Do. do.
21	„ June 11	6 42·4	6 43·7	0·5	Sensibility 1 m. m. = 0″·08.
22	„ „ 16	1 42·0	1 44·4	1·3	„ „ 0″·10.
23	„ July 9	...	...	...	Movements very small and hence difficult to locate the phases exactly.
24	„ August 22	3 5·1	...	...	Boom in violent motion.
25	„ „ 24	1 57·2	2 0·7	1·5	Sensibility 1 m. m. = 0″·10.
26	„ „ 30	21 56·1	21 59·3	1·2	„ „ 0″·12.
27	„ September 20	6 34·1	6 37·6	0·5	„ „ „
28	„ „ 22	1 58·2	...	...	Maximum phase, not well marked. Sensibility 1 m. m. = 0″·10.
29	„ „ 23	20 39·3	21 47·3	4·8	Sensibility 1 m. m. = 0″·08.
30	„ October 6	9 18·6	9 22·0	1·4	„ „ 0″·14.
31	„ „ 15	...	...	...	Movements very small, hence difficult to locate the phases exactly.
32	„ November 4	11 18·2	11 44·6	2·0	Sensibility 1 m. m. = 0″·11.
33	„ „ 21	...	...	...	Movements very small and hence difficult to locate the phases exactly.
34	„ December 13	17 10·4	17 18·8	3·0	Sensibility 1 m. m. = 0″·08.
35	„ „ 16	...	...	...	Movements very small and hence difficult to locate the phases exactly.
36	„ „ 28	...	...	...	Do. do.

1903.

1	1903, January 14	...	...	...	Lines intermingled due to shifting of Zero and hence difficult to tabulate.
2	„ February 1	9 46·8	9 54·8	2·2	Sensibility 1 m. m. = 0″·07.
3	„ „ 5	...	...	...	Movements very small and hence difficult to locate the phases exactly.
4	„ „ 6	...	...	...	Do. do.

1903—continued.

Observatory Number.	Date.	Time of Disturbance in G. M. T.		Amplitude or half the complete range of Maximum motion.	Remarks.
		Beginning.	Maximum.		
		H. m.	H. m.	Millimetres.	
5 ...	1903, February 11 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
6 ...	„ „ 27 ...	...	...	...	Disturbance partially recorded due to lifting up of the pen.
7 ...	„ „ 28 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
8 ...	„ March 22 ...	...	...	...	Do. do.
9 ...	„ „ 30 ...	...	...	...	Do. do.
10 ...	„ April 28-29 ...	23 56·3	0 1·1	0·4	Sensibility 1 m. m. = 0″·19.
11 ...	„ May 13 ...	...	...	..	Movements very small and hence difficult to locate the phases exactly.
12 ...	„ „ 17 ...	...	...	...	Do. do.
13 ...	„ August 11 ...	...	...	...	Do. do.
14 ...	„ October 21 ...	...	...	...	Do. do.
15 ...	„ November 26 ...	...	...	...	Do. do.
16 ...	„ December 3 ...	21 33·4	...	...	Do. do.
17 ...	„ „ 10 ...	17 7·1	17 13·1	3·2	Sensibility 1 m. m. = 0″·07.

1904.

1 ...	1904, January 20 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
2 ...	„ March 19 ...	...	...	...	Do. do.
3 ...	„ „ 31 ...	5 54·5	5 56·7	0·7	Sensibility 1 m. m. = 0″·03.
4 ...	„ April 4 ...	10 11·3	10 55·9	0·8	„ „ 0″·08.
5 ...	„ „ 5 ...	10 26·4	10 34·5	0·3	„ „ 0″·11.
6 ...	„ „ 9 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
7 ...	„ „ 13 ...	...	...	...	Do. do.
8 ...	„ May 1 ...	15 46·2	...	...	Movements very small hence maximum cannot be determined exactly.
9 ...	„ June 24 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
10 ...	„ „ 25 ...	15 6·7	15 32·4	10·3	Sensibility 1 m. m. = 0″·22.
11 ...	„ „ „ ...	21 41·3	21 46·9	1·4	„ „ „
12 ...	„ „ 27 ...	0 52·5	...	...	Maximum phase not well defined. Sensibility 1 m. m. = 0″·22.
13 ...	„ July 24 ...	...	...	...	Movements very small and hence difficult to locate the phases.
14 ...	„ August 24 ...	21 9·6	...	...	Maximum phase not well defined: Sensibility 1 m. m. = 0″·28.
15 ...	„ „ 27 ...	22 20·5	22 50·2	0·8	Sensibility 1 m. m. = 0″·20.
16 ...	„ „ 30 ...	11 54·1	11 59·3	0·9	„ „ 0″·29.
17 ...	„ September 11 ...	5 56·8	6 1·5	0·9	„ „ 0″·20.
18 ...	„ October 3 ...	3 8·8	3 13·9	28·3	„ „ 0″·23.
19 ...	„ „ 28 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.

1905.

1 ...	1905, January 22 ...	...	3 12·1	0·4	Sensibility 1 m. m. = 0″·25: Beginning lost in shifting time.
2 ...	„ February 19 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
3 ...	„ „ 27 ...	...	...	...	Do. do.
4 ...	„ March 5 ...	...	...	...	Do. do.

1905—continued.

Observatory Number.	Date.	Time of Disturbance in G. M. T.		Amplitude or half the complete range of Maximum motion.	Remarks.
		Beginning.	Maximum.		
		H. m.	H. m.	Millimetres.	
5 ...	1905, March 19 ...	0 13·6	...	...	Maximum phase not well defined.
6 ...	„ „ 22 ...	4 21·4	4 27·3	0·4	Sensibility 1 m. m. = 0″·17.
7 ...	„ April 4 ...	...	...	...	Due to lifting of the recording pen the disturbance is partially recorded.
8 ...	„ May 23 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly
9 ...	„ June 14 ...	...	...	...	Do. do.
10 ...	„ July 9 ...	9 47·7	...	...	Maximum phase cannot be determined as the boom was moving violently and its motion was restricted betwen guides.
11 ...	„ „ 11 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
12 ...	„ „ 14 ...	...	...	...	Do. do.
13 ...	„ „ 15 ...	...	...	...	Do. do.
14 ...	„ „ 23 ...	2 53·3	...	...	Maximum phase cannot be determined as the boom was moving violently and its motion was restricted between guides.
15 ...	„ September 8 ...	1 52·4	...	...	Maximum not well defined.
16 ...	„ „ 14 ...	...	...	...	Movements very small and hence difficult to locate the phases.
17 ...	„ „ 15 ...	6 15·0	6 51·9	2·6	Sensibility 1 m. m. = 0″·16.
18 ...	„ „ 26 ...	1 31·2	1 33·0	0·8	„ „ 0″·12.
19 ...	„ „ 29 ...	...	...	...	Movements very small and hence difficult to locate the phases.
20 ...	„ November 9 ...	22 17·5	...	...	Movements being small, maximum phase cannot be determined exactly.
21 ...	„ December 4 ...	...	...	...	Movements small and hence difficult to locate the phases.
22 ...	„ „ 10 ...	...	...	...	Do. do.

TABLE III.—List of Principal Disturbances registered by Colaba (N.-S.) Seismograph at Colaba, 1902-1905.

1902.

Observatory Number.	Date.	Time of Disturbance in G. M. T.		Amplitude or half the complete range of Maximum motion.	Remarks.
		Beginning.	Maximum		
		H. m.	H. m.	Millimetres.	
1	1902, January 1	...	...	...	Phases cannot be determined due to lifting of the record pen in several places.
2	„ „ 24	23 39·9	23 50·2	0·4	Sensibility 1 m. m. = 0″·31.
3	„ „ 29	...	...	...	Movements very small and hence difficult to locate the phases exactly.
4	„ „ 30	...	...	...	Do. do.
5	„ „ 31	...	...	...	Do. do.
6	„ February 13	...	...	...	Do. do.
7	„ „ 16	...	...	...	Do. do.
8	„ March 5	...	...	...	Do. do.
9	„ „ 28	14 54·0	15 1·8	0·8	Sensibility 1 m. m. = 0″·23.
10	„ April 7	...	...	...	Movements very small and hence difficult to locate the phases exactly.
11	„ „ 19	2 43·6	3 49·4	4·2	Sensibility 1 m. m. = 0″·31.
12	„ „ 21	...	...	...	Movements very small and hence difficult to locate the phases exactly.
13	„ June 11	6 39·9	6 43·4	0·3	Sensibility 1 m. m. = 0″·31.
14	„ „ 16	1 42·3	1 45·0	1·5	„ „ = 0″·31.
15	„ August 22	...	...	...	Beginning lost due to lifting of the recording pen and the maximum.
16	„ „ „	...	...	...	Cannot be determined due to violent motion of the boom (the motion of boom being restricted between guides).
17	„ „ 24	...	....	...	Disturbance partially recorded due to lifting of the pen.
18	„ „ 30	21 57·1	...	...	Maximum phase lost due to lifting of the recording pen. Sensibility 1 m. m. = 0″·31.
19	„ September 20	...	...	...	Movements very small and hence difficult to locate the phases exactly.
20	„ „ 22	1 59·0	2 16·5	3·5	Sensibility 1 m. m. = 0″·31.
21	„ „ 23	20 39·4	21 43·7	13·2	„ „ = 0″·17.
22	„ October 6	9 18·6	9 22·2	0·8	„ „ = 0″·20.
23	„ November 4	11 19·9	11 46·4	0·7	„ „ = 0″·31.
24	„ „ 21	...	...	...	Movements very small and hence difficult to locate the phases exactly.
25	„ December 13	17 10·3	17 17·2	1·2	Sensibility 1 m. m. = 0″·30.
26	„ „ 16	...	...	...	Owing to shifting of zero the lines are intermingled and it is therefore difficult to determine the phases exactly.
27	„ „ 28	...	...	...	Movements very small and hence difficult to locate the phases.

1903.

1	1903, January 14	2 7·4	2 53·3	7·0	Sensibility 1 m. m. = 0″·20.
2	„ February 1	9 46·7	9 54·8	1·3	Do. do.
3	„ „ 5	19 34·2	19 39·8	0·5	Do. do.
4	„ „ 6	...	...	...	Movements very small and hence difficult to locate the phases exactly.
5	„ „ 11	...	...	...	Do. do.
6	„ „ 27	0 53·3	1 3·3	5·0	Sensibility 1 m. m. = 0″·22.
7	„ March 30	...	...	...	Movements very small and hence difficult to locate the phases exactly.
8	„ April 28 & 29	23 55·5	0 1·2	0·4	Sensibility 1 m. m. = 0″·26.

1903—continued.

Observatory Number.	Date.	Time of Disturbance in G. M. T. Beginning.	Time of Disturbance in G. M. T. Maximum.	Amplitude or half the complete range of Maximum motion.	Remarks.
		H. m.	H. m.	Millimetres.	
9 ...	1903, May 3 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
10 ...	„ „ 17 ...	...	...	...	Do. do.
11 ...	„ June 8 ...	...	...	...	Do. do.
12 ...	„ August 11 ...	...	...	...	Do. do.
13 ...	„ September 8 ...	...	...	...	Do. do.
14 ...	„ October 21 ...	...	...	...	Do. do.
15 ...	„ November 26 ...	...	...	...	Do. do.
16 ...	„ December 4 ...	...	...	...	Do. do.
17 ...	„ „ 10 ...	17 8·9	17 12·7	0·6	Sensibility 1 m. m. = 0″·42.

1904.

1 ...	1904, January 20 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
2 ...	„ March 19 ...	...	...	...	Do. do.
3 ...	„ „ 31 ...	5 54·3	5 56·5	0·5	Sensibility 1 m. m. = 0″·33.
4 ...	„ April 4 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
5 ...	„ „ 5 ...	10 24·5	10 34·0	0·7	Sensibility 1 m. m. = 0″·42.
6 ...	„ „ 9 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
7 ...	„ „ 13 ...	...	...	...	Do. do.
8 ...	„ May 1 ...	...	...	...	Do. do.
9 ...	„ June 24 ...	...	...	...	Do. do.
10 ...	„ „ 25 ...	15 7·5	15 32·9	6·8	Sensibility 1 m. m. = 0″·42.
11 ...	„ „ „ ...	21 42·4	21 48·7	1·6	„ „ = 0″·42.
12 ...	„ „ 27 ...	0 48·4	1 3·6	0·7	„ „ = 0″·50.
13 ...	„ July 24 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
14 ...	„ August 24 ...	21 16·8	21 34·1	0·5	Sensibility 1 m. m. = 0″·50.
15 ...	„ „ 28 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
16 ...	„ „ 30 ...	11 54·1	11 59·0	2·2	Sensibility 1 m. m. = 0″·50.
17 ...	„ September 11 ...	5 56·9	6 2·0	0·4	„ „ = 0″·62.
18 ...	„ October 3 ...	3 8·7	3 14·8	12·0	„ „ = 0″·62.

1905.

1 ...	1905, January 22 ...	...	3 13·1	0·3	Sensibility 1 m. m. = 0″·42.
2 ...	„ February 19 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
3 ...	„ „ 27 ...	...	...	...	Do. do.
4 ...	„ March 19 ...	...	...	...	Do. do.
5 ...	„ „ 22 ...	4 21·5	4 25·4	0·2	Sensibility 1 m. m. = 0″·29.
6 ...	„ April 4 ...	0 53·1	...	...	Maximum phase cannot be determined as the boom was moving violently due to the intensity of the disturbance. Sensibility 1 m. m. = 0″·29.
7 ...	„ June 14 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
8 ...	„ July 6 ...	...	...	...	Do. do.
9 ...	„ „ 9 ...	9 47·7	10 1·1	33·3	Sensibility 1 m. m. = 0″·42.
10 ...	„ „ 11 ...	...	...	...	Movements very small and hence difficult to locate the phases exactly.
11 ...	„ „ 23 ...	2 53·5	3 9·9	48·5	Sensibility 1 m. m. = 0″·31.
12 ...	„ September 8 ...	...	...	...	Movements very small and hence difficult to locate the phases.
13 ...	„ „ 14 ...	...	...	...	Do. do.
14 ...	„ „ 15 ...	6 15·0	6 51·5	3·0	Sensibility 1 m. m. = 0″·42.
15 ...	„ „ 26 ...	1 29·9	1 34·4	0·3	„ „ = 0″·33.
16 ...	„ „ 29 ...	...	...	...	Movements very small and hence difficult to locate the phases.
17 ...	„ November 9 ...	...	...	...	Do. do.
18 ...	„ December 4 ...	...	...	...	Do. do.
19 ...	„ „ 10 ...	...	...	...	Do. do.

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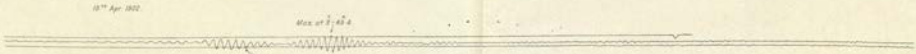
GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

Plate I



All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY. BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate 2

30th Aug 1902

E-W. Record.

22nd Sept 1902.

E-W. Record.

22nd Sept 1902

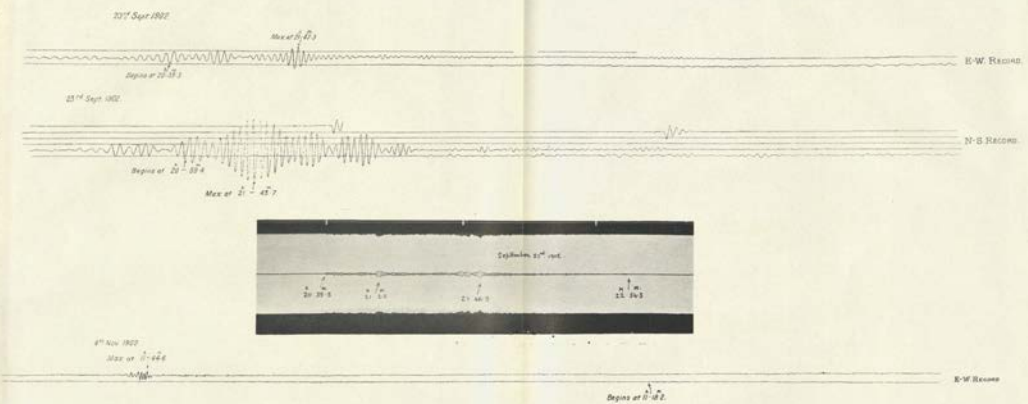
N-S. Record.

All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate 3

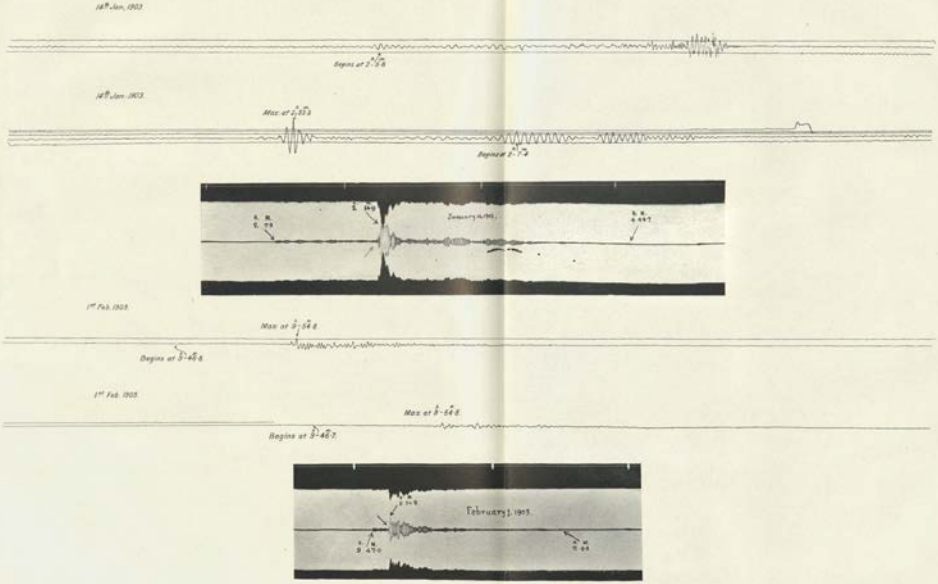


All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate 4



All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

Plate 5

Feb. 27th 1903.

Maxm at 1h 53

N-S. Record.

Begins at 1h 53

All Times mentioned above denote G.M.T

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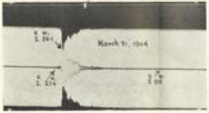
GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

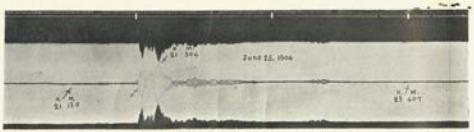
Plate 6

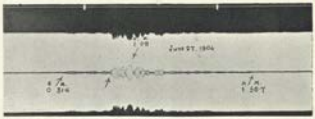


All Times mentioned above denote G.M.T

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.





All times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate II

30th Aug 1904.

Max at 8h 58m 5

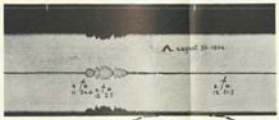
E-W. Record.

Begins at 8h 54m

30th Aug. 1904.

N-S. Record

Begins at 8h 58m



Max at 3h 58m 9

31st Oct 1904

E-W. Record.

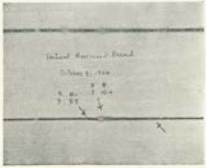
Begins at 3h 54m 9

Max at 3h 58m

31st Oct. 1904.

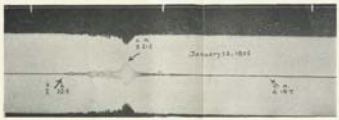
N-S. Record

Begins at 3h 57m



All Times mentioned or above denote G.M.T.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.



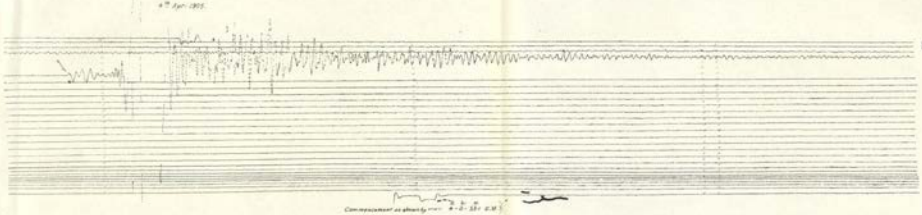
All Times mentioned above are denote G M T

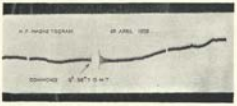
GOVERNMENT OBSERVATORY, BOMBAY.

Principal Disturbances as recorded by the Colaba Seismograph the Milne's Seismograph the Vertical movement Seismograph the Kew magnetographs and the Barograph on 4th April 1905.

Plate 10

THE DHARMSALA EARTHQUAKE.





Note. Breaks on the Horizontal Force, Vertical Force, Declination, and Barograph Curves denote hourly marks at even hours. On the Vertical movement Seismogram they denote hourly interval as in Milne's

All Times mentioned above denote G.M.T.

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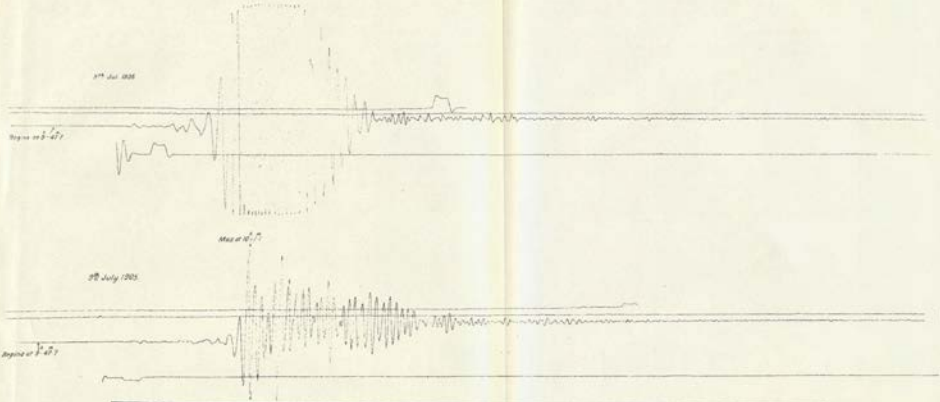
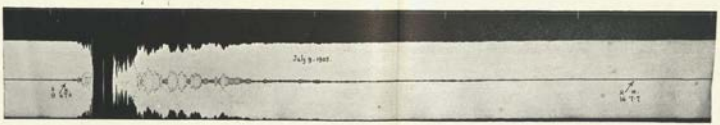
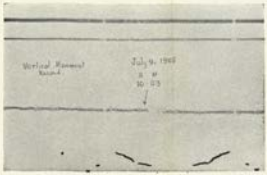
Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.





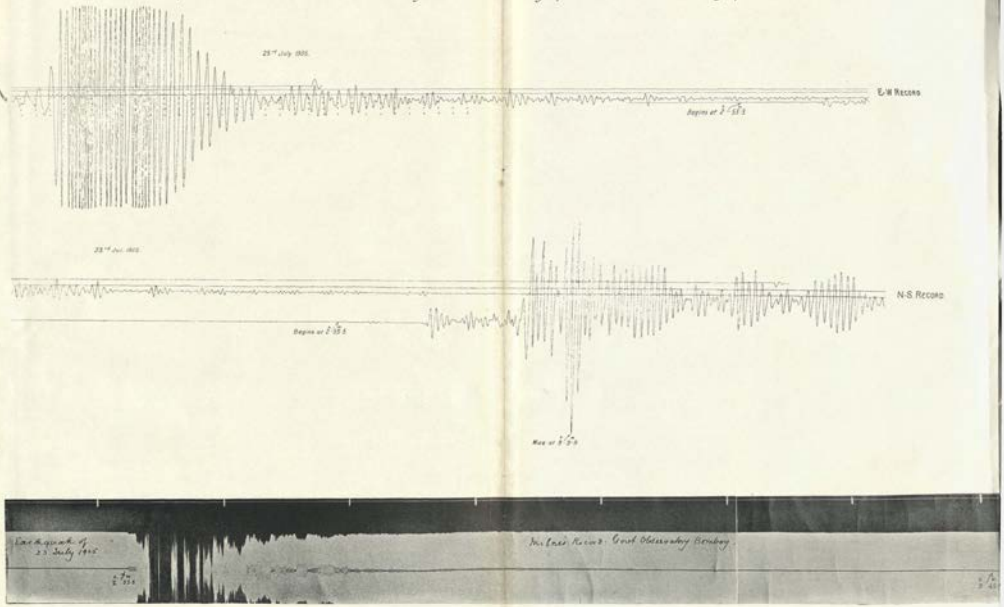


All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

Plate 12



All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

Plate 23

E-W RECORD.

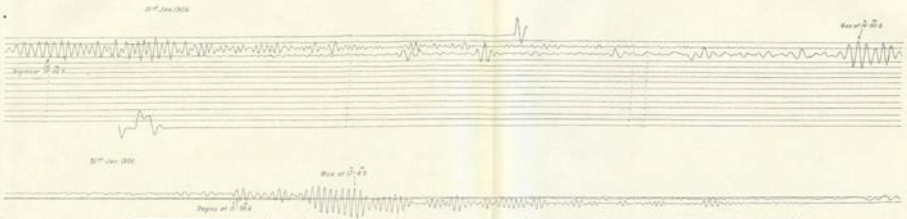
N-S. RECORD.

All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY. BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate 14



All Times mentioned above denote G.M.T

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

Plate 15

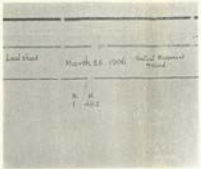
E-W Record.

N-S Record.

All Times mentioned above denote G.M.T.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne Seismograph.

Plate 16



E-W Record.

N-S Record.

All Times mentioned above denote G.M.T.

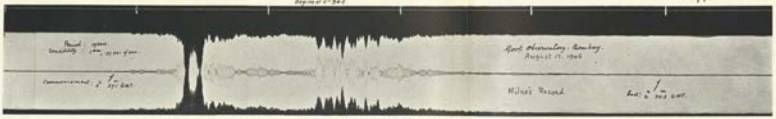
GOVERNMENT OBSERVATORY, BOMBAY.

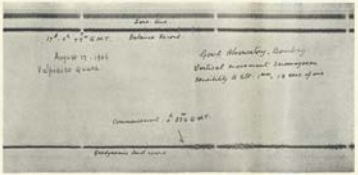
Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph.

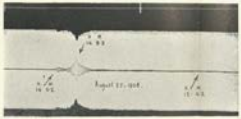
Plate 17.

17th Aug 1906.

N. S. Rama







All Times mentioned above denote G.M.T.

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milne's Seismograph

Plate 18.

24th Oct. 1906

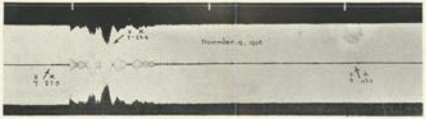
E-W Record.

24th Oct. 1906

N-S Record.

13th Nov. 1906

N-S Record



All Times mentioned above denote G.M.T

GOVERNMENT OBSERVATORY, BOMBAY.

Principal Seismic Disturbances as recorded by the Colaba Seismographs and the Milnes Seismograph.

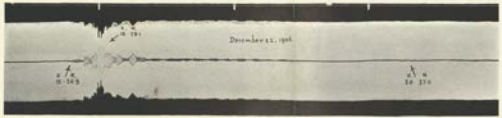
Plate 19

22nd Dec. 1906.

E-W Record

22nd Dec. 1906.

N-S Record



All Times mentioned above denote G.M.T

TABLES OF RESULTS

OF

ABSOLUTE MAGNETICAL OBSERVATIONS

AT COLABA,

1902 TO 1905.

B 1011—1 T

Absolute Magnetical Observations.—Table I.

Observations of Vibration and Deflection, taken with the Kew Unifilar Magnetometer (No. 23, by Elliott Brothers), for the determination of Absolute Horizontal Force.

1902.

1902. Date.	Civil Time, Mean.	Magnet N. 23 *a*. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 *c* by N. 23 *a* at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0\cdot8}$)	1·0 foot ($X_{1\cdot0}$)	Difference. $X_{0\cdot8}-X_{1\cdot0}$	Mean. $\frac{X_{0\cdot8}+X_{1\cdot0}}{2}$	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div.	°	s.		°	° ′ ″	° ′ ″	∖°		°								
JANUARY 2	12 49	2·8577	0·89	88·0	+3·0	16·13	83·5	17 15 40	8 46 39	86·6	16·00	84·3	S.	·62996	8·1190	8·1184	+·0006	8·1187		
,, ,,	15 49	2·8569	0·86	83·5	,,	15·62	84·9	17 15 23	8 46 15	86·6	15·89	84·9	S.	·62987	8·1186	8·1190	−·0004	8·1188		
,, 9	8 13	2·8569	0·90	84·0	+2·0	16·21	82·1	17 16 7	8 46 37	84·1	16·29	81·9	N.	·62980	8·1186	8·1190	−·0004	8·1188		
,, ,,	9 55	2·8566	0·83	85·6	,,	16·33	83·5	17 15 2	8 46 8	85·0	16·35	83·0	N.	·62971	8·1240	8·1238	+·0002	8·1239		
,, 15	13 59	2·8566	0·86	84·4	+3·1	16·26	82·9	17 16 2	8 46 37	85·0	16·07	83·4	S.	·62990	8·1191	8·1193	−·0002	8·1192		
,, ,,	15 58	2·8574	0·86	85·0	,,	15·91	83·9	17 16 4	8 46 42	84·6	15·97	83·8	S.	·62981	8·1178	8·1173	+·0003	8·1174	8·1199	3·7439
,, 22	12 4	2·8562	0·91	83·2	+3·3	16·67	79·9	17 16 13	8 46 40	82·9	16·57	80·3	N.	·62983	8·1204	8·1208	−·0004	8·1206		
,, ,,	15 36	2·8567	0·83	83·3	,,	16·24	81·9	17 16 20	8 46 42	83·6	16·24	81·7	N.	·62983	8·1184	8·1190	−·0006	8·1187		
,, 29	12 9	2·8560	0·83	83·8	+2·8	16·74	80·5	17 15 33	8 46 17	84·1	16·64	81·2	S.	·62981	8·1231	8·1238	−·0007	8·1234		
,, ,,	15 11	2·8567	0·81	83·6	,,	16·08	82·2	17 15 41	8 46 27	85·2	16·26	82·0	S.	·62987	8·1195	8·1195	·0000	8·1195		
FEBRUARY 5	12 0	2·8556	0·85	83·3	+3·2	17·22	79·6	17 15 35	8 46 25	83·6	16·96	80·7	S.	·62983	8·1242	8·1240	+·0002	8·1241		
,, ,,	15 8	2·8564	0·83	83·0	,,	16·31	82·4	17 15 33	8 46 27	84·4	16·59	82·0	S.	·62985	8·1210	8·1206	+·0004	8·1208		
,, 12	11 24	2·8567	0·82	85·3	+2·7	16·75	81·2	17 14 7	8 45 37	86·6	16·60	82·3	S.B.B.	·62954	8·1255	8·1261	−·0006	8·1258		
,, ,,	15 5	2·8570	0·82	86·3	,,	15·75	84·5	17 14 11	8 45 45	87·6	16·08	83·8	S.B.B.	·62975	8·1244	8·1240	+·0004	8·1242	8·1213	3·7446
,, 19	11 25	2·8560	0·88	82·0	+3·2	16·46	81·0	17 16 21	8 46 45	82·0	16·29	81·7	S.B.B.	·62977	8·1204	8·1206	−·0002	8·1205		
,, ,,	15 3	2·8566	0·85	81·8	,,	15·98	82·2	17 16 22	8 46 48	82·3	16·00	82·3	S.B.B.	·62969	8·1182	8·1182	·0000	8·1182		
,, 26	12 7	2·8570	0·80	84·3	+3·1	16·38	81·4	17 15 25	8 46 16	84·9	16·27	81·8	S.	·62964	8·1204	8·1210	−·0006	8·1207		
,, ,,	15 8	2·8575	0·80	84·8	,,	15·67	83·3	17 16 10	8 46 41	85·0	15·91	83·0	S.	·62991	8·1165	8·1165	·0000	8·1165		
MARCH 5	12 7	2·8563	0·71	84·0	+2·8	16·28	84·0	17 14 40	8 46 0	84·6	16·14	84·5	N.	·62958	8·1257	8·1251	+·0006	8·1254		
,, ,,	15 14	2·8578	0·80	86·2	,,	15·55	85·4	17 14 34	8 46 0	86·5	15·76	85·3	N.	·62962	8·1216	8·1208	+·0008	8·1212		
,, 12	12 0	2·8572	0·81	84·9	+2·8	16·22	83·1	17 16 19	8 46 42	83·0	16·09	83·7	S.B.B.	·62975	8·1188	8·1193	−·0005	8·1190		
,, ,,	14 30	2·8574	0·86	84·8	,,	15·62	84·9	17 16 23	8 46 44	82·8	15·84	84·2	S.B.B.	·62978	8·1180	8·1184	−·0004	8·1182	8·1212	3·7445
,, 19	11 11	2·8573	0·91	85·2	+2·6	16·14	84·6	17 16 14	8 46 41	84·3	16·06	85·0	S.B.B.	·62983	8·1176	8·1178	−·0002	8·1177		
,, ,,	15 10	2·8577	0·85	86·5	,,	15·29	86·2	17 16 1	8 46 34	84·8	15·54	86·0	S.B.B.	·62993	8·1180	8·1184	−·0004	8·1182		
,, 27	11 59	2·8587	0·79	91·6	+3·0	15·46	87·7	17 11 55	8 44 47	91·1	15·26	88·1	S.	·62919	8·1296	8·1279	+·0017	8·1287		
,, ,,	15 7	2·8607	0·79	92·1	,,	14·73	89·0	17 12 18	8 44 56	92·1	14·86	88·9	S.	·62909	8·1219	8·1208	+·0011	8·1213		

1902. Date.	Civil Time, Mean.	Magnet N. 23 *a*. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 *c* by N. 23 *a* at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0\cdot8}$)	1·0 foot ($X_{1\cdot0}$)	Difference. $X_{0\cdot8}-X_{1\cdot0}$	Mean. $\frac{X_{0\cdot8}+X_{1\cdot0}}{2}$	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div.	°	s.		°	° ′ ″	° ′ ″	°		°								
April 2	12 32	2·8586	0·67	88·9	+2·5	15·65	86·9	17 13 41	8 45 37	89·9	15·48	87.1	N.	·62946	8·1221	8·1210	+·0011	8·1215		
„ „	15 28	2·8591	0·72	90·0	„	15·24	88·0	17 13 33	8 45 33	90·9	15·27	87·8	N.	·62954	8·1212	8·1199	+·0013	8·1205		
„ 9	12 3	2·8580	0·71	90·3	+3·0	16·11	86·6	17 13 24	8 45 19	90·4	15·77	87·0	S.	·62954	8·1257	8·1257	·0000	8·1257		
„ „	15 7	2·8588	0·69	89·7	„	15·03	87·8	17 14 7	8 45 41	89·8	15·17	87·6	S.	·62968	8·1206	8·1206	·0000	8·1206		
„ 17	12 5	2·8585	0·63	89·2	+2·7	15·55	87·1	17 13 28	8 45 21	89·8	15·45	87·7	N.	·62946	8·1236	8·1236	·0000	8·1236	8·1219	3·7448
„ „	15 27	2·8594	0·70	89·5	„	14·83	88·9	17 13 53	8 45 30	90·8	15·01	88·7	N.	·62954	8·1188	8·1191	−·0003	8·1189		
„ 24	12 22	2·8589	0·76	90·5	+2·7	15·53	86·9	17 13 35	8 45 20	91·0	15·35	87·5	S	·62951	8·1218	8·1223	−·0005	8·1220		
„ „	15 32	2·8594	0·72	90·6	„	14·86	89·0	17 13 38	8 45 30	90·9	15·08	88·6	S.	·62959	8·1206	8·1201	+·0005	8·1203		
„ 30	11 50	2·8585	0·61	90·3	+2·9	15·86	88·0	17 12 35	8 44 59	90·7	15·78	88·5	N.	·62938	8·1272	8·1266	+·0006	8·1269		
„ „	15 11	2·8600	0·72	90·7	„	14·95	89·9	17 13 18	8 45 20	91·5	15·14	89·5	N.	·62938	8·1195	8·1190	+·0005	8·1192		
May 7	11 55	2·8600	0·65	93·0	+3·0	15·19	89·3	17 12 38	8 44 57	93·3	15·10	89·8	S.	·62939	8·1225	8·1225	·0000	8·1225		
„ „	15 19	2·8608	0·69	93·0	„	14·71	90·7	17 12 52	8 45 5	93·6	14·92	90·5	S.	·62940	8·1190	8·1188	+·0002	8·1189		
„ 14	12 14	2·8595	0·66	91·0	+3·0	15·29	90·7	17 12 16	8 44 55	92·8	15·15	91·1	N.	·62925	8·1242	8·1229	+·0013	8·1235		
„ „	15 34	2·8619	0·64	91·9	„	14·56	92·0	17 13 7	8 45 11	93·0	14·74	91·6	N.	·62927	8·1171	8·1171	·0000	8·1171	8·1203	3·7441
„ 21	11 59	2·8601	0·65	92·2	+2·7	15·37	89·3	17 12 10	8 44 48	93·5	15·24	89·8	S.	·62920	8·1233	8·1225	+·0008	8·1229		
„ „	15 7	2·8612	0·66	92·5	„	14·63	90·9	17 12 25	8 44 55	93·5	14·87	90·6	S.	·62916	8·1193	8·1186	+·0007	8·1189		
„ 28	12 11	2·8598	0·68	92·4	+2·9	15·27	90·7	17 12 20	8 44 56	93·6	15·04	91·1	N.	·62929	8·1234	8·1223	+·0011	8·1228		
„ „	15 19	2·8609	0·68	91·8	„	14·43	91·9	17 13 22	8 45 22	93·6	14·61	91·6	N.	·62940	8·1165	8·1160	+·0005	8·1162		
June 4	11 57	2·8600	0·69	93·6	+2·7	15·11	91·1	17 10 39	8 43 52	95·1	14·91	91·7	S.	·62888	8·1289	8·1294	−·0005	8·1291		
„ „	15 10	2·8612	0·66	92·9	„	14·37	92·2	17 11 2	8 44 15	95·6	14·59	92·0	S.	·62894	8·1229	8·1221	+·0008	8·1225		
„ 11	13 7	2·8574	0·64	86·5	+3·1	16·01	84·8	17 14 10	8 45 47	86·8	15·94	85·0	N.	·62954	8·1246	8·1238	+·0008	8·1242		
„ „	15 30	2·8581	0·64	83·7	„	15·61	84·1	17 14 59	8 46 11	85·2	15·74	84·6	N.	·62943	8·1184	8·1178	+·0006	8·1181		
„ 18	11 49	2·8598	0·63	90·9	+3·3	15·38	87·2	17 13 12	8 45 16	91·1	15·28	87·6	S.	·62930	8·1212	8·1208	+·0004	8·1210	8·1222	3·7450
„ „	15 3	2·8607	0·61	91·4	„	14·84	88·3	17 13 40	8 45 32	91·5	14·91	88·1	S.	·62936	8·1171	8·1165	+·0006	8·1168		
„ 25	12 19	2·8586	0·78	89·4	+2·8	15·54	88·1	17 12 41	8 45 5	90·3	15·52	88·6	N.	·62932	8·1259	8·1249	+·0010	8·1254		
„ „	15 15	2·8600	0·74	90·7	„	14·97	89·4	17 13 17	8 45 13	90·7	15·22	89·3	N.	·62933	8·1203	8·1206	−·0003	8·1204		
July 2	11 59	2·8600	0·69	92·3	+2·2	15·22	88·8	17 12 27	8 44 57	93·0	15·13	89·1	S.	·62927	8·1227	8·1219	+·0008	8·1223		
„ „	14 57	2·8597	0·68	90·5	„	14·99	89·0	17 13 27	8 45 25	91·2	14·99	89·0	S.	·62939	8·1201	8·1193	+·0008	8·1197		
„ 9	12 22	2·8585	0·60	87·1	+3·3	15·67	85·0	17 13 40	8 45 25	88·7	15·56	85·4	N.	·62929	8·1223	8·1225	−·0002	8·1224		
„ „	15 25	2·8592	0·68	87·6	„	15·23	85·5	17 13 56	8 45 37	88·7	15·38	85·6	N.	·62936	8·1197	8·1193	+·0004	8·1195		
„ 16	11 33	2·8582	0·66	84·3	+2·7	15·76	83·6	17 14 10	8 45 47	85·1	15·77	83·7	S.B.B.	·62911	8·1219	8·1212	+·0007	8·1215	8·1207	3·7443
„ „	15 14	2·8583	0·66	84·6	„	15·32	83·9	17 14 57	8 46 10	85·0	15·46	83·9	S.B.B.	·62939	8·1190	8·1184	+·0006	8·1187		
„ 23	12 15	2·8584	0·60	87·0	+2·9	15·81	85·2	17 13 15	8 45 21	87·7	15·80	85·6	N.	·62920	8·1249	8·1242	+·0007	8·1245		
„ „	15 9	2·8586	0·71	86·8	„	15·40	86·0	17 13 32	8 45 27	88·2	15·51	85·8	N.	·62925	8·1225	8·1219	+·0006	8·1222		
„ 30	11 48	2·8594	0·62	88·3	+3·1	15·22	86·3	17 13 59	8 45 41	89·5	15·10	86·7	S.	·62935	8·1188	8·1182	+·0006	8·1185		
„ „	14 58	2·8601	0·69	89·6	„	14·79	87·3	17 13 47	8 45 31	89·9	14·87	87·3	S.	·62927	8·1182	8·1180	+·0002	8·1181		

August 6	12	6	2·8590	0·71	87·9	+2·7	15·23	86·7	17	13	17	8	45	27	88·8	15·17	87·1	N.	·62920	8·1227	8·1212	+·0015	8·1219		
„ „	15	24	2·8598	0·76	88·8	„	14·87	87·7	17	13	32	8	45	32	89·1	14·96	87·6	N.	·62917	8·1197	8·1186	+·0011	8·1191		
„ 13	11	43	2·8581	0·63	85·0	+2·2	15·34	85·8	17	14	14	8	45	50	86·7	15·28	85·9	S. B. B.	·62929	8·1210	8·1203	+·0007	8·1206		
„ „	15	15	2·8598	0·68	88·8	„	14·83	87·0	17	14	56	8	46	10	87·7	14·97	86·6	S. B. B.	·62949	8·1158	8·1150	+·0008	8·1154	8·1194	3·7437
„ 20	11	53	2·8593	0·71	89·5	+2·8	15·55	86·1	17	13	22	8	45	30	89·5	15·42	86·3	N.	·62926	8·1221	8·1206	+·0015	8·1213		
„ „	15	30	2·8589	0·78	84·5	„	14·91	87·1	17	14	20	8	45	51	88·7	15·06	87·5	N.	·62935	8·1160	8·1154	+·0006	8·1157		
„ 28	11	36	2·8582	0·69	85·3	+4·0	15·85	83·0	17	14	17	8	45	50	85·3	15·91	83·3	S. B. B.	·62927	8·1223	8·1216	+·0007	8·1219		
„ „	14	59	2·8581	0·71	84·5	„	15·58	83·4	17	14	52	8	46	7	85·4	15·75	83·8	S. B. B.	·62948	8·1195	8·1190	+·0005	8·1192		
Sept. 3	12	25	2·8572	0·63	81·5	+3·4	16·04	80·4	17	15	52	8	46	38	81·7	16·11	80·6	N.	·62945	8·1191	8·1186	+·0005	8·1188		
„ „	15	20	2·8591	0·63	84·2	„	15·63	81·0	17	16	0	8	46	32	82·2	15·89	80·8	N.	·62938	8·1152	8·1158	−·0006	8·1155		
„ 10	11	52	2·8591	0·74	85·9	+3·7	15·83	83·4	17	14	15	8	45	50	86·5	15·82	84·0	S. B. B.	·62917	8·1190	8·1182	+·0008	8·1186		
„ „	14	51	2·8596	0·77	86·5	„	15·20	85·0	17	14	55	8	46	10	86·7	15·53	84·6	S. B. B.	·62940	8·1154	8·1147	+·0007	8·1150		
„ 17	12	8	2·8578	0·62	82·6	+3·0	15·78	80·9	17	15	5	8	46	16	83·7	15·75	81·4	N.	·62929	8·1195	8·1188	+·0007	8·1191	8·1179	3·7430
„ „	15	15	2·8584	0·60	85·4	„	15·68	82·1	17	14	45	8	46	0	85·0	15·69	82·0	N.	·62929	8·1204	8·1203	+·0001	8·1203		
„ 25	11	27	2·8589	0·61	85·9	+3·2	15·65	83·8	17	15	7	8	46	17	84·8	15·57	84·2	S. B. B.	·62932	8·1180	8·1171	+·0009	8·1175		
„ „	15	1	2·8590	0·64	86·2	„	15·09	85·2	17	15	2	8	46	7	85·1	15·38	84·9	S. B. B.	·62940	8·1180	8·1182	−·0002	8·1181		
Oct. 1	12	11	2·8591	0·67	86·8	+2·8	15·27	85·0	17	14	50	8	46	7	86·5	15·14	85·4	N.	·62933	8·1176	8·1169	+·0007	8·1172		
„ „	15	24	2·8601	0·64	86·6	„	14·79	86·0	17	15	4	8	46	7	86·9	14·87	86·0	N.	·62925	8·1135	8·1137	−·0002	8·1136		
„ 9	12	8	2·8585	0·59	87·0	+3·0	15·55	86·6	17	13	13	8	45	22	86·9	15·38	87·0	S. B. B.	·62904	8·1255	8·1244	+·0011	8·1249		
„ „	15	8	2·8586	0·67	85·9	„	14·74	87·3	17	13	40	8	45	31	87·9	14·93	87·4	S. B. B.	·62926	8·1214	8·1208	+·0006	8·1211		
„ 15	12	12	2·8583	0·76	88·5	+2·7	15·68	85·9	17	13	35	8	45	37	87·3	15·43	86·3	N.	·62927	8·1251	8·1236	+·0015	8·1243		
„ „	15	36	2·8597	0·73	87·6	„	14·81	86·9	17	14	41	8	45	56	87·3	14·90	86·7	N.	·62930	8·1163	8·1165	−·0002	8·1164	8·1192	3·7436
„ 22	11	44	2·8596	0·79	88·9	+2·6	15·53	86·4	17	13	30	8	45	25	89·0	15·37	87·1	S. B. B.	·62911	8·1206	8·1201	+·0005	8·1203		
„ „	15	0	2·8602	0·81	90·0	„	14·74	88·5	17	13	50	8	45	37	89·3	14·94	88·1	S. B. B.	·62929	8·1182	8·1176	+·0006	8·1179		
„ 29	12	3	2·8604	0·78	90·4	+2·2	15·35	87·8	17	12	52	8	45	8	90·7	15·12	88·3	N.	·62894	8·1204	8·1197	+·0007	8·1200		
„ „	15	20	2·8616	0·89	92·2	„	14·68	89·2	17	12	51	8	45	7	92·4	14·83	89·0	N.	·62903	8·1169	8·1163	+·0006	8·1166		
Nov. 5	11	30	2·8592	0·79	88·2	+2·8	15·28	86·8	17	13	35	8	45	36	88·6	15·16	87·5	S. B. B.	·62923	8·1212	8·1197	+·0015	8·1204		
„ „	15	4	2·8598	0·85	88·7	„	14·52	89·0	17	14	22	8	45	59	89·6	14·74	88·5	S. B. B.	·62949	8·1158	8·1145	+·0013	8·1151		
„ 12	12	2	2·8576	0·73	87·5	+2·7	16·06	84·7	17	12	1	8	44	42	89·7	15·90	85·2	S.	·62909	8·1302	8·1296	+·0006	8·1299		
„ „	15	2	2·8599	0·75	89·6	„	15·39	86·2	17	12	27	8	44	55	90·1	15·57	85·9	S.	·62898	8·1234	8·1229	+·0005	8·1231		
„ 19	11	36	2·8574	0·87	87·2	+3·3	16·27	84·6	17	13	29	8	45	26	88·0	16·10	85·2	S. B. B.	·62942	8·1264	8·1259	+·0005	8·1261	8·1198	3·7439
„ „	14	55	2·8581	0·88	87·8	„	15·33	86·9	17	14	7	8	45	45	88·4	15·64	86·2	S. B. B.	·62964	8·1219	8·1214	+·0005	8·1216		
„ 26	12	14	2·8598	1·01	86·7	+2·7	15·59	83·0	17	15	7	8	46	5	87·5	15·53	83·4	N.	·62926	8·1130	8·1135	−·0005	8·1132		
„ „	15	29	2·8611	1·06	87·3	„	15·09	86·0	17	14	59	8	46	2	89·5	15·30	85·2	N.	·62917	8·1085	8·1090	−·0005	8·1087		
Dec. 3	11	30	2·8569	0·75	84·2	+2·7	16·32	83·2	17	14	10	8	45	46	85·3	15·96	84·5	S. B. B.	·62930	8·1253	8·1247	+·0006	8·1250		
„ „	15	2	2·8579	0·82	86·0	„	15·44	86·1	17	14	42	8	46	2	87·3	15·60	85·6	S. B. B.	·62961	8·1199	8·1193	+·0006	8·1196		
„ 10	12	38	2·8574	0·85	82·3	+2·3	16·20	81·8	17	15	47	8	46	30	82·5	16·06	81·8	N.	·62930	8·1184	8·1184	·0000	8·1184		
„ „	15	51	2·8586	0·78	80·8	„	15·72	81·2	17	16	37	8	46	47	82·1	15·71	81·5	N.	·62923	8·1111	8·1120	−·0009	8·1115		
„ 17	11	24	2·8599	0·98	86·7	+3·2	15·80	83·0	17	14	0	8	45	50	86·1	15·73	83·7	S. B. B.	·62894	8·1184	8·1167	+·0017	8·1175	8·1182	3·7431
„ „	14	53	2·8601	0·91	86·8	„	15·22	85·1	17	14	21	8	45	59	86·7	15·40	84·8	S. B. B.	·62909	8·1161	8·1147	+·0014	8·1154		
„ 24	11	26	2·8571	0·77	81·4	+2·9	16·42	79·1	17	15	56	8	46	40	82·6	16·12	80·5	S. B. B.	·62943	8·1178	8·1173	+·0005	8·1175		
„ „	14	25	2·8582	0·81	85·2	„	15·67	82·7	17	16	4	8	46	43	83·3	15·79	82·2	S. B. B.	·62959	8·1169	8·1163	+·0006	8·1166		
„ 31	11	22	2·8558	0·64	79·2	+2·8	17·05	78·1	17	16	31	8	46	50	80·3	16·99	78·7	S. B. B.	·62962	8·1199	8·1201	−·0002	8·1200		
„ „	13	30	2·8560	0·67	82·1	„	16·75	80·1	17	16	35	8	46	53	81·8	16·83	79·7	S. B. B.	·62988	8·1201	8·1203	−·0002	8·1202		
																						The mean value of the Horizontal Force for the year 1902 =		8·1202	3·7441

Absolute Magnetical Observations.—Table II.

Observations of Absolute Declination.

1902.

1902. Date.	Bombay Civil Time.	Mean Readings. Collimator Magnet. Scale apparently Erect.	Mean Readings. Collimator Magnet. Scale apparently Inverted.	Mean Readings. Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Mean Readings. Horizontal Circle with Telescope pointed to. Tardeo Chimney.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Monthly Mean. Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″
JAN. 3	11 29	+1·55	+1·42	16 52 15	196 56 40	0		S.	18·27	0 22 9		
,, 10	13 13	+1·54	+1·50	16 50 40	196 56 40	0		N.	18·04	0 20 29		
,, 15	10 47	+1·54	+1·47	16 49 45	196 56 50	0		S. B. B.	17·92	0 19 25	18·08	0 20 53
,, 23	11 33	+1·50	+1·56	16 52 10	196 57 5	0		N.	18·13	0 21 27		
,, 30	11 18	+1·52	+1·49	16 51 0	196 56 30	0		S.	18·04	0 20 57		
FEB. 6	11 0	+1·56	+1·42	16 50 50	196 56 40	0		S. B. B.	18·01	0 20 46		
,, 13	11 46	+1·52	+1·30	16 50 30	196 56 20	0		S.	18·05	0 20 51		
,, 20	10 42	+1·55	+1·41	16 51 20	196 56 40	0		S. B. B.	18·09	0 21 16	17·99	0 20 30
,, 27	11 51	+1·52	+1·41	16 48 40	196 56 5	0		S.	17·83	0 19 8		
MARCH. 6	11 34	+1·52	+1·37	16 49 30	196 56 0	0		N.	18·01	0 20 6		
,, 13	10 41	+1·52	+1·31	16 49 45	196 56 40	0		S. B. B.	17·89	0 19 45		
,, 20	11 41	+1·56	+1·41	16 48 45	196 56 10	0		S. B. B.	17·83	0 19 11	17·95	0 20 0
,, 28	10 56	+1·56	+1·39	16 50 30	196 56 10	0		S. B. B.	18·06	0 20 57		
APRIL. 3	11 33	+1·52	+1·32	16 48 30	196 55 45	10 W	0·95	N.	17·97	0 19 40		
,, 10	11 11	+1·51	+1·52	16 50 30	196 56 30	0		S.	18·00	0 20 26	17·93	0 19 41
,, 18	11 25	+1·55	+1·30	16 49 0	196 56 20	10 E	1·00	N.	17·87	0 19 8		
,, 25	11 44	+1·52	+1·47	16 49 0	196 56 0	0		S.	17·90	0 19 29		
MAY. 1	12 29	+1·55	+1·31	16 48 35	196 56 0	0		S. B. B.	17·89	0 19 18		
,, 8	10 47	+1·55	+1·54	16 49 20	196 56 20	0		S.	17·91	0 19 26		
,, 15	11 3	+1·55	+1·36	16 47 45	196 56 0	0		N.	17·81	0 18 23	17·82	0 18 35
,, 22	11 23	+1·54	+1·36	16 47 30	196 56 20	0		S.	17·70	0 17 48		
,, 29	11 51	+1·55	+1·37	16 47 30	196 56 10	0		N.	17·79	0 17 58		
JUNE. 5	11 2	+1·56	+1·31	16 45 5	196 56 0	0		S.	17·50	0 15 48		
,, 12	11 50	+1·51	+1·36	16 46 50	196 56 10	0		N.	17·69	0 17 16	17·69	0 17 20
,, 19	11 6	+1·59	+1·40	16 47 20	196 55 50	0		S.	17·78	0 18 8		
,, 27	11. 31	+1·52	+1·45	16 48 0	196 56 20	0		N.	17·80	0 18 10		
JULY. 3	10 51	+1·56	+1·32	16 47 5	196 55 50	0		S.	17·77	0 17 58		
,, 10	11 44	+1·51	+1·50	16 48 20	196 56 0	0		N.	17·89	0 18 46		
,, 17	11 16	+1·52	+1·47	16 48 0	196 55 40	0		S. B. B.	17·87	0 18 49	17·78	0 18 4
,, 24	11 52	+1·51	+1·57	16 45 50	196 55 50	0		N.	17·57	0 16 22		
,, 31	11 11	+1·54	+1·40	16 47 40	196 56 50	0		S.	17·81	0 18 26		
AUG. 7	11 30	+1·51	+1·50	16 47 30	196 55 50	0		N.	17·80	0 18 6		
,, 14	11 13	+1·55	+1·40	16 45 50	196 56 0	0		S. B. B.	17·58	0 16 26		
,, 21	11 38	+1·50	+1·64	16 44 0	196 55 45	0		N.	17·40	0 14 31	17·59	0 16 26
,, 29	10 51	+1·56	+1·35	16 45 20	196 55 20	0		S. B. B.	17·57	0 16 40		
SEPT. 4	11 36	+1·57	+1·35	16 45 0	196 54 50	0		N.	17·62	0 16 51		
,, 11	11 12	+1·55	+1·41	16 45 50	196 55 30	0		S. B. B.	17·64	0 16 56		
,, 18	11 52	+1·49	+1·61	16 44 50	196 55 5	0		N.	17·54	0 16 3	17·61	0 16 46
,, 26	11 26	+1·47	+1·61	16 46 50	196 55 50	0		S. B. B.	17·65	0 17 16		
OCT. 2	11 19	+1·56	+1·29	16 46 20	196 55 30	0		S. B. B.	17·76	0 17 34		
,, 10	11 20	+1·56	+1·29	16 45 20	196 54 50	0		S. B. B.	17·69	0 17 14		
,, 16	12 0	+1·55	+1·47	16 46 20	196 55 30	0		N.	17·74	0 17 22	17·76	0 17 52
,, 23	11 28	+1·54	+1·41	16 47 20	196 55 30	0		S. B. B.	17·80	0 18 24		
,, 30	11 3	+1·55	+1·50	16 47 25	196 54 50	10 E	1·04	N.	17·80	0 18 48		
NOV. 6	11 2	+1·50	+1·65	16 45 35	196 54 25	0		S. B. B.	17·75	0 17 26		
,, 13	11 29	+1·55	+1·30	16 45 10	196 54 10	0		N.	17·77	0 17 43	17·81	0 17 59
,, 20	11 31	+1·56	+1·34	16 46 40	196 55 0	0		S. B. B.	17·86	0 18 21		
,, 27	11 57	+1·57	+1·30	16 46 50	196 54 50	15 E	0·83	N.	17·85	0 18 25		
DEC. 4	11 38	+1·56	+1·29	16 46 30	196 55 30	0		S. B. B.	17·77	0 17 44		
,, 11	11 43	+1·52	+1·39	16 45 50	196 55 45	0		N.	17·65	0 16 39	17·76	0 17 25
,, 18	11 15	+1·56	+1·41	16 45 50	196 55 50	0		S. B. B.	17·68	0 16 36		
,, 25	11 44	+1·57	+1·34	16 47 40	196 55 40	0		S. B. B.	17·95	0 18 41		

The Mean Declination for the year 1902 = 0° 18′ 28″

Absolute Magnetical Observations.—Table III.

OBSERVATIONS OF INCLINATION, 1902.

Taken with Barrow's Dip Circle, with Microscopes, No. 49, and two 3½-inch Needles, Nos. 1 and 2, by Dover, Charlton.

1902. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 1	11 20	12 30	S.B.B.	1	22 29·0	22 14·5	20 52·0	20 39·7	21 33·8	No. 1	
,, 3	14 15	15 45	S.	2	21 54·7	21 45·1	21 26·9	21 10·2	21 34·2	21° 33′·3	
,, 7	11 32	12 57	N.	1	21 53·4	21 45·1	21 25·0	21 8·0	21 32·9		
,, 11	7 32	8 58	N.	1	22 22·4	22 11·2	20 53·9	20 47·5	21 33·7		
,, 15	6 50	8 10	S.	1	22 26·7	22 11·5	20 55·4	20 41·0	21 33·6		21 33·4
,, 16	7 37	8 59	S.	2	21 56·9	21 46·5	21 27·9	21 6·7	21 34·5		
,, 21	11 34	12 57	N.	2	21 53·0	21 44·6	21 24·1	21 5·6	21 31·8		
,, 24	14 15	15 38	N.	1	22 20·5	22 12·1	20 52·2	20 46·6	21 32·8	No. 2	
,, 28	10 30	12 0	S.	1	22 24·5	22 11·2	20 53·1	20 41·6	21 32·6	21° 33′·5	
,, 31	14 20	15 52	S.	2	21 56·2	21 45·4	21 25·2	21 8·9	21 33·9		
FEB. 4	11 15	12 30	S.B.B.	2	21 56·7	21 44·9	21 24·1	21 9·1	21 33·7	No. 1	
,, 7	14 15	15 40	S.B.B.	1	22 23·7	22 10·5	20 52·6	20 45·9	21 33·2	21° 33′·5	
,, 11	11 20	12 34	S.	1	22 24·7	22 11·6	20 54·4	20 41·4	21 33·0		
,, 14	14 30	15 57	S.	2	21 55·4	21 47·2	21 26·2	21 8·4	21 34·3		21 33·8
,, 18	11 0	12 20	S.B.B.	2	21 54·4	21 44·2	21 26·5	21 9·6	21 33·7		
,, 21	14 15	15 45	S.B.B.	1	22 25·2	22 13·4	20 55·5	20 42·6	21 34·2	No. 2	
,, 25	11 18	12 42	S.	1	22 28·9	22 15·5	20 50·7	20 39·2	21 33·6	21° 34′·2	
,, 28	13 54	15 26	S.	2	21 57·2	21 48·7	21 26·9	21 7·6	21 35·1		
MAR. 4	11 9	12 30	N.	2	21 55·9	21 46·1	21 26·0	21 9·7	21 34·4	No. 1	
,, 7	13 29	14 52	N.	1	22 23·9	22 11·9	20 53·2	20 47·7	21 34·2	21° 33′·2	
,, 11	10 45	12 0	S.B.B.	1	22 24·5	22 9·7	20 51·6	20 45·2	21 32·7		
,, 14	14 30	15 55	S.B.B.	2	21 57·0	21 47·1	21 25·0	21 7·7	21 34·2		
,, 18	10 20	11 35	S.B.B.	2	21 56·9	21 46·7	21 24·2	21 7·7	21 33·9		21 33·7
,, 21	14 58	16 32	N.	1	22 22·1	22 13·8	20 52·2	20 47·4	21 33·9	No. 2	
,, 26	10 55	12 15	S.	1	22 22·2	22 10·7	20 52·4	20 43·4	21 32·2	21° 34′·2	
,, 28	14 15	15 30	S.B.B.	2	21 55·6	21 45·7	21 25·4	21 10·0	21 34·2		
APRIL 1	11 46	13 12	N.	2	21 54·7	21 44·6	21 29·1	21 4·4	21 33·2	No. 1	
,, 4	13 59	15 40	N.	1	22 26·5	22 11·7	20 57·2	20 44·7	21 35·0	21° 33′·6	
,, 8	10 45	12 7	S.	1	22 26·9	22 12·0	20 53·0	20 32·1	21 31·0		
,, 12	12 32	13 56	S.	2	21 59·7	21 42·4	21 31·2	21 6·9	21 35·0		
,, 15	11 12	12 42	N.	2	21 57·6	21 43·9	21 27·6	21 5·9	21 33·7		21 33·9
,, 18	13 42	15 0	N.	1	22 27·7	22 9·6	20 57·9	20 41·4	21 34·1		
,, 23	10 50	12 39	S.	1	22 32·2	22 11·9	20 51·2	20 41·5	21 34·2	No. 2	
,, 25	14 15	15 36	S.	2	22 1·5	21 46·1	21 24·7	21 5·6	21 34·5	21° 34′·1	
,, 29	11 30	12 56	N.	2	22 3·7	21 42·9	21 29·5	21 0·2	21 34·1		

1902. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 2	14 31	15 47	S.B.B.	1	22 33·5	22 10·2	20 56·9	20 39·2	21 34·9		
,, 6	10 50	12 5	S.B.B.	1	22 28·7	22 7·9	20 58·7	20 39·1	21 33·6	No. 1	
,, 9	14 15	15 42	S.	2	21 59·6	21 46·5	21 28·5	21 3·0	21 34·4	21 34·6	
,, 13	11 29	12 55	N.	2	22 6·5	21 42·6	21 29·2	21 5·2	21 35·9		
,, 16	13 54	15 20	N.	1	22 31·4	22 7·2	21 2·6	20 39·9	21 35·3		21 34·9
,, 20	10 45	12 15	S.	1	22 32·9	22 12·4	20 59·4	20 28·1	21 33·2		
,, 23	14 20	15 47	S.	2	22 5·7	21 46·1	21 31·4	21 4·7	21 37·0	No. 2	
,, 27	11 20	12 45	N.	2	21 59·4	21 41·9	21 28·7	21 6·2	21 34·0	21 35·3	
,, 31	14 30	16 3	N.	1	22 34·4	22 9·0	21 5·4	20 35·9	21 36·2		
JUNE 3	10 37	12 6	S.	1	22 38·7	22 12·2	20 55·7	20 29·2	21 33·9		
,, 6	14 25	15 58	S.	2	22 3·4	21 45·0	21 27·6	21 7·5	21 35·9	No. 1	
,, 10	11 30	12 55	N.	2	21 57·2	21 37·5	21 32·5	21 6·2	21 33·3	21 34·7	
,, 13	13 57	15 21	N.	1	22 30·2	22 8·9	21 4·0	20 41·4	21 36·1		
,, 17	10 37	12 3	S.	1	22 33·7	22 7·6	20 56·5	20 36·1	21 33·5		21 34·6
,, 20	14 25	15 53	S.	2	22 5·6	21 39·0	21 28·4	21 7·9	21 35·2	No. 2	
,, 24	11 20	12 40	N.	2	22 0·4	21 40·0	21 31·2	21 4·0	21 33·9	21 34·6	
,, 27	14 20	15 50	N.	1	22 32·1	22 9·3	20 59·1	20 41·1	21 35·4		
JULY 1	11 50	13 12	S.	1	22 33·6	22 13·4	20 56·2	20 35·9	21 34·8		
,, 4	14 20	15 51	S.	2	22 6·0	21 45·7	21 32·9	21 5·0	21 37·4	No. 1	
,, 8	11 29	12 55	N.	2	22 1·6	21 43·1	21 31·2	21 5·9	21 35·4	21 35·8	
,, 11	14 12	15 42	N.	1	22 31·7	22 10·9	21 0·7	20 40·2	21 35·9		
,, 15	10 45	12 0	S.B.B.	1	22 33·4	22 10·7	20 57·4	20 41·2	21 35·7		21 36·0
,, 18	14 24	15 50	S.B.B.	2	22 6·2	21 44·5	21 30·1	21 5·4	21 36·5		
,, 22	11 17	12 40	N.	2	22 0·7	21 46·1	21 29·0	21 7·4	21 35·8	No. 2	
,, 25	14 4	15 30	N.	1	22 32·5	22 13·2	21 0·7	20 42·9	21 37·3	21 36·3	
,, 29	10 26	11 51	S.	1	22 36·4	22 13·9	21 58·7	20 32·1	21 35·2		
AUG. 1	14 25	15 49	S.	2	22 6·1	21 51·4	21 31·6	21 9·9	21 39·7		
,, 5	11 10	12 30	S.B.B.	2	22 2·6	21 43·0	21 32·1	21 6·9	21 36·1	No. 1	
,, 8	14 0	15 26	N.	1	22 33·1	22 14·2	21 3·4	20 45·9	21 39·1	21 38·4	
,, 12	10 40	11 55	S.B.B.	1	22 35·6	22 10·9	21 0·5	20 38·4	21 36·3		
,, 15	14 22	15 45	S.B.B.	2	22 2·7	21 49·0	21 33·1	21 11·6	21 39·1		21 38·2
,, 19	11 12	12 40	N.	2	22 2·2	21 46·1	21 29·1	21 7·5	21 36·2		
,, 22	14 18	15 55	N.	1	22 34·2	22 15·5	21 4·0	20 46·0	21 39·9	No. 2	
,, 27	10 38	11 55	S.B.B.	1	22 32·2	22 13·5	21 4·4	20 43·1	21 38·3	21 38·0	
,, 29	14 45	16 10	S.B.B.	2	22 4·7	21 45·1	21 33·4	21 11·7	21 38·7		

1902. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
SEPT. 2	11 21	12 45	N.	2	22 1·7	21 46·2	21 29·1	21 7·4	21 36·1		
„ 4	14 7	15 30	N.	1	22 31·0	22 13·7	21 4·0	20 46·4	21 38·8	No. 1	
„ 9	11 0	12 15	S.B.B.	1	22 32·5	22 5·2	21 4·1	20 41·9	21 35·9	21 37·9	
„ 12	14 30	15 47	S.B.B.	2	22 9·2	21 46·7	21 29·6	21 6·7	21 38·0		
„ 16	11 24	12 42	N.	2	22 0·7	21 46·4	21 28·5	21 7·7	21 35·8		21 37·5
„ 19	14 20	15 50	S.B.B.	1	22 32·4	22 15·7	21 5·5	20 47·2	21 40·2		
„ 24	10 15	11 30	S.B.B.	1	22 33·9	22 4·9	21 4·5	20 43·6	21 36·7	No. 2	
„ 26	14 30	15 55	S.B.B.	2	22 8·4	21 52·4	21 30·7	21 9·7	21 40·3	21 37·2	
„ 30	11 9	12 32	N.	2	22 2·5	21 46·4	21 28·0	21 7·1	21 36·0		
OCT. 3	14 12	15 32	N.	1	22 32·4	22 13·4	21 3·5	20 46·4	21 38·9	No. 1	
„ 8	11 0	12 15	S.B.B.	1	22 32·0	22 7·6	21 4·0	20 43·7	21 36·8	21 38·0	
„ 10	14 30	15 55	S.B.B.	2	22 8·7	21 49·9	21 29·7	21 9·9	21 39·5		
„ 14	11 31	12 50	N.	2	22 2·9	21 47·6	21 29·6	21 8·7	21 37·2		
„ 17	13 56	15 20	N.	1	22 32·2	22 13·7	21 2·9	20 48·5	21 39·3		21 38·2
„ 21	11 40	12 55	S.B.B.	1	22 30·5	22 8·5	21 7·5	20 42·4	21 37·2	No. 2	
„ 24	14 20	15 45	S.B.B.	2	22 9·9	21 46·7	21 28·2	21 8·1	21 38·2	21 38·3	
„ 28	11 15	12 39	N.	2	22 3·2	21 49·1	21 30·2	21 10·2	21 38·2		
„ 31	14 20	15 40	S.B.B.	1	22 44·5	22 19·7	21 10·7	20 48·6	21 45·9		
NOV. 4	10 30	11 50	S.B.B.	1	22 38·7	22 5·7	21 4·0	20 44·9	21 38·3		
„ 7	14 25	15 50	S.B.B.	2	22 11·0	21 51·0	21 29·7	21 9·0	21 40·2	No. 1	
„ 11	11 0	12 20	S.	2	22 14·2	21 50·4	21 29·9	21 4·5	21 39·7	21 39·4	
„ 14	13 55	15 19	N.	1	22 32·0	22 11·6	21 6·6	20 46·7	21 39·2		
„ 18	11 15	12 30	S.B.B.	1	22 34·0	22 11·2	21 5·1	20 46·0	21 39·1		21 39·9
„ 21	14 20	15 40	S.B.B.	2	22 16·1	21 51·1	21 29·1	21 5·0	21 40·3		
„ 25	12 10	13 34	N.	2	22 9·2	21 51·7	21 33·4	21 12·2	21 41·6	No. 2	
„ 28	14 5	15 50	N.	1	22 34·4	22 14·2	21 7·5	20 48·2	21 41·1	21 40·4	
DEC. 2	11 15	12 35	S.	1	22 36·5	22 17·5	21 7·5	20 44·7	21 41·5		
„ 5	10 20	11 51	S.	2	22 19·4	21 49·6	21 35·1	21 2·2	21 41·6		
„ 9	11 30	12 55	N.	2	22 9·2	21 47·0	21 33·9	21 4·9	21 38·7	No. 1	
„ 12	14 10	15 35	N.	1	22 32·5	22 12·1	21 5·4	20 45·4	21 38·8	21 39·5	
„ 16	10 55	12 10	S.B.B.	1	22 39·5	22 6·7	21 5·0	20 44·2	21 38·8		
„ 19	14 20	15 45	S.B.B.	2	22 11·2	21 47·1	21 35·4	21 2·9	21 39·1		21 39·5
„ 23	11 25	12 47	N.	2	22 15·6	21 45·6	21 29·0	21 5·1	21 38·8		
„ 26	13 57	15 10	S.B.B.	1	22 37·0	22 7·6	21 6·6	20 46·0	21 39·3	No. 2	
„ 30	10 55	12 10	S.B.B.	1	22 39·6	22 7·2	21 3·1	20 47·0	21 39·2	21 39·5	

The Mean Dip for the year... { With Needle No. 1 = 21 36·0 ; With Needle No. 2 = 21 36·3

The Mean Dip for the year 1902 = 21 36·1

October 31 was a day of disturbance and the result of the observation therefore has been omitted in the monthly mean.

Absolute Magnetical Observations.—Table III-*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1902.

Taken with New (Dover, Charlton's) Dip Circle, with Miscroscopes, No. 110, and two 3½-inch Needles, Nos. 1 and 2, by Dover.

1902. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 1	13 45	14 55	S.B.B.	1	21 27·9	21 15·1	21 44·6	21 38·6	21 31·5	No. 1 ° ′ 21 31·4	21 31·7
„ 7	13 12	14 20	N.	2	21 15·6	21 7·7	21 57·0	21 46·2	21 31·6		
„ 15	8 30	9 49	S.	1	21 30·2	21 16·6	21 39·9	21 37·5	21 31·0	No. 2 ° ′ 21 32·0	
„ 21	13 12	14 24	N.	2	21 18·8	21 7·6	21 57·3	21 46·5	21 32·5		
„ 28	12 39	14 0	S.	1	21 29·7	21 16·3	21 42·9	21 38·4	21 31·8		
FEB. 4	13 10	14 30	S.B.B.	2	21 20·1	21 7·2	21 58·1	21 46·6	21 33·0	No. 1 ° ′ 21 33·3	21 33·1
„ 11	13 10	14 33	S.	1	21 28·2	21 17·6	21 45·4	21 41·6	21 33·2		
„ 18	13 10	14 30	S.B.B.	2	21 19·4	21 8·4	21 55·9	21 47·5	21 32·8	No. 2 ° ′ 21 32·9	
„ 25	13 15	14 40	S.	1	21 25·1	21 19·8	21 47·3	21 41·4	21 33·4		
MAR. 4	12 50	14 2	N.	2	21 17·2	21 8·7	21 59·1	21 48·7	21 33·4	No. 1 ° ′ 21 31·4	21 32·1
„ 11	12 50	14 0	S.B.B.	1	21 22·9	21 19·9	21 47·5	21 36·6	21 31·7		
„ 18	11 55	13 10	S.B.B.	2	21 17·0	21 8·5	21 56·0	21 47·4	21 32·2	No. 2 ° ′ 21 32·8	
„ 26	12 32	14 0	S.	1	21 25·4	21 18·0	21 43·7	21 37·4	21 31·1		
APR. 1	13 28	14 36	N.	2	21 14·2	21 10·1	21 59·1	21 49·2	21 33·1	No. 1 ° ′ 21 31·1	21 32·7
„ 8	12 32	13 56	S.	1	21 24·0	21 17·1	21 42·3	21 35·3	21 29·7		
„ 15	12 51	14 3	N.	2	21 19·8	21 8·7	21 56·7	21 50·6	21 33·9	No. 2 ° ″ 21 33·8	
„ 23	13 30	15 0	S.	1	21 27·9	21 15·9	21 43·7	21 42·9	21 32·6		
„ 29	13 11	14 24	N.	2	21 19·7	21 10·9	21 57·1	21 50·1	21 34·4		
MAY. 6	12 35	13 50	S.B.B.	1	21 24·2	21 15·5	21 44·1	21 41·9	21 31·4	No. 1 ° ′ 21 32·2	21 33·9
„ 13	13 15	14 25	N.	2	21 23·1	21 7·9	22 0·7	21 51·1	21 35·7		
„ 20	12 40	14 0	S.	1	21 28·4	21 20·8	21 43·9	21 39·0	21 33·0	No. 2 ° ″ 21 35·6	
„ 27	13 4	14 25	N.	2	21 19·2	21 11·6	21 59·9	21 51·6	21 35·6		
JUNE. 3	12 23	13 50	S.	1	21 28·5	21 20·0	21 43·9	21 45·7	21 34·5	No. 1 ° ″ 21 34·2	21 33·9
„ 10	13 8	14 22	N.	2	21 16·2	21 9·4	21 57·0	21 51·7	21 33·6		
„ 17	12 23	13 47	S.	1	21 24·1	21 18·2	21 47·3	21 46·1	21 33·9	No. 2 ° ′ 21 33·5	
„ 24	12 58	14 20	N.	2	21 15·7	21 8·4	21 58·9	21 51·2	21 33·5		

1902. Date.	Bombay Civil Time (0 to 24 hours). At commencement.		At conclusion.		Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.		A. Face of Circle. West.		B. Face of Circle. East.		B. Face of Circle. West.		Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h.	m.	h.	m.			°	′	°	′	°	′	°	′	°	′	° ′
July 1	13	55	15	15	S.	1	21	25·5	21	17·9	21	50·0	21	46·2	21	34·9	No. 1 21° 34′·5
,, 8	13	12	14	26	N.	2	21	18·1	21	12·1	21	58·1	21	51·6	21	35·0	
,, 15	12	13	13	35	S.B.B.	1	21	23·0	21	16·1	21	50·4	21	45·2	21	33·7	21° 34′·5
,, 22	13	0	14	20	N.	2	21	16·7	21	10·9	21	57·1	21	52·7	21	34·3	No. 2 21° 34′·6
,, 29	12	15	13	50	S.	1	21	24·6	21	17·5	21	51·2	21	46·1	21	34·8	
August 5	12	50	14	10	S.B.B.	2	21	18·4	21	12·1	21	58·2	21	51·7	21	35·1	No. 1 21° 34′·4
,, 12	12	20	13	40	S.B.B.	1	21	23·6	21	18·4	21	50·0	21	46·4	21	34·6	
,, 19	13	0	14	25	N.	2	21	16·2	21	13·9	21	56·1	21	50·8	21	34·2	21° 34′·5
,, 27	12	18	13	40	S.B.B.	1	21	27·9	21	20·5	21	44·0	21	44·7	21	34·3	No. 2 21° 34′·6
Sept. 2	13	0	14	17	N.	2	21	17·2	21	13·6	21	56·9	21	52·9	21	35·1	No. 1 21° 35′·1
,, 9	12	32	13	47	S.B.B.	1	21	25·0	21	17·7	21	51·2	21	46·6	21	35·0	
,, 16	12	55	14	14	N.	2	21	17·5	21	12·1	21	57·8	21	54·2	21	35·4	21° 35′·4
,, 24	12	10	13	30	S.B.B.	1	21	25·1	21	18·9	21	53·1	21	43·9	21	35·2	No, 2 21° 35′·6
,, 30	12	47	14	2	N.	2	21	17·6	21	12·7	21	58·3	21	56·6	21	36·3	
Oct. 8	12	30	13	45	S.B.B.	1	21	31·2	21	17·4	21	48·7	21	44·2	21	35·4	No. 1 21° 36′·0
,, 14	13	5	14	18	N.	2	21	26·2	21	11·9	22	4·1	21	51·7	21	38·5	
,, 21	13	10	14	30	S.B.B.	1	21	25·2	21	20·2	21	54·6	21	46·4	21	36·6	21° 37′·2
,, 28	12	52	14	9	N.	2	21	22·9	21	14·3	22	3·6	21	53·2	21	38·5	No. 2 21° 38′·5
Nov. 4	12	10	13	30	S.B.B.	1	21	26·4	21	20·0	21	53·0	21	45·7	21	36·3	No. 1 21° 36′·9
,, 11	13	0	14	20	S.	2	21	22·4	21	14·1	22	3·5	21	52·8	21	38·2	
,, 18	12	40	13	55	S.B.B.	1	21	27·7	21	21·6	21	52·5	21	48·0	21	37·5	21° 38′·2
,, 25	13	49	15	8	N.	2	21	24·1	21	14·8	22	7·8	21	56·4	21	40·8	No. 2 21° 39′·5
Dec. 2	12	50	14	18	S.	1	21	31·1	21	21·4	21	54·8	21	49·7	21	39·2	No. 1 21° 39′·2
,, 9	13	11	14	25	N.	2	21	23·2	21	12·3	22	5·1	21	52·3	21	38·2	
,, 16	13	10	14	20	S.B.B.	1	21	31·4	21	21·5	21	54·2	21	51·0	21	39·5	21° 39′·0
,, 23	13	2	14	25	N.	2	21	25·3	21	12·7	22	6·6	21	53·4	21	39·5	No. 2 21° 38′·8
,, 30	12	20	13	30	S.B.B.	1	21	33·1	21	18·9	21	53·6	21	49·7	21	38·8	

The Mean Dip for the year ... { With Needle No. 1 = 21° 34′·1 / With Needle No. 2 = 21° 35′·2

The Mean Dip for the year 1902 = 21° 34′·7.

Absolute Magnetical Observations.—Table I.

Observations of Vibration and Deflection, taken with the Kew Unifilar Magnetometer (No. 23, by Elliott Brothers), for the determination of Absolute Horizontal Force.

1903.

1903. Date.	Civil Time, Mean.	Magnet N. 23 *a*. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 *c* by N. 23 *a* at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0\cdot8}$)	1·0 foot ($X_{1\cdot0}$)	Difference. $X_{0\cdot8} - X_{1\cdot0}$	Mean. $\frac{X_{0\cdot8}+X_{1\cdot0}}{2}$	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div.	°	s.		°	° ′ ″	° ′ ″	°		°								
JANUARY 7	11 17	2·8581	0·76	83·9	+2·3	15·96	82·4	17 16 17	8 46 42	84·3	15·85	83·1	S.B.B.	·62961	8·1143	8·1147	−·0004	8·1145		
,, ,,	13 20	2·8584	0·76	86·0	,,	15·56	84·3	17 15 5	8 46 6	85·4	15·75	83·6	S.B.B.	·62945	8·1190	8·1193	−·0003	8·1191		
,, 15	12 7	2·8568	0·64	78·7	+2·5	16·78	77·8	17 15 23	8 46 36	80·0	16·61	78·8	B.H.N.	·62909	8·1212	8·1188	+·0024	8·1200		
,, ,,	15 47	2·8572	0·68	80·7	,,	16·19	80·2	17 15 52	8 46 57	80·4	16·34	80·1	B.H.N.	·62942	8·1195	8·1163	+·0032	8·1179	8·1180	3·7430
,, 21	12 15	2·8567	0·58	79·2	+2·6	16·80	78·5	17 16 20	8 46 54	79·9	16·58	79·7	N.	·62938	8·1186	8·1176	+·0010	8·1181		
,, ,,	15 28	2·8582	0·68	81·5	,,	16·19	81·3	17 16 5	8 46 46	81·4	16·31	80·8	N.	·62925	8·1156	8·1148	+·0008	8·1152		
,, 28	12 27	2·8554	0·56	76·9	+2·3	17·67	73·9	17 16 20	8 46 55	77·4	17·36	75·2	B.H.N.	·62929	8·1223	8·1212	+·0011	8·1217		
,, ,,	15 26	2·8573	0·58	78·9	,,	16·78	77·0	17 16 15	8 46 51	78·4	17·04	76·3	B.H.N.	·62916	8·1182	8·1173	+·0009	8·1177		
FEBRUARY 4	12 11	2·8557	0·64	77·8	+2·3	17·19	76·7	17 16 47	8 47 7	77·6	17·18	77·1	N.	·62949	8·1204	8·1195	+·0009	8·1199		
,, ,,	15 33	2·8568	0·64	77·3	,,	16·70	78·8	17 16 48	8 46 52	78·1	16·87	78·4	N.	·62920	8·1163	8·1173	−·0010	8·1168		
,, 11	12 2	2·8568	0·59	81·8	+2·8	16·44	79·1	17 15 7	8 46 17	82·1	16·38	80·1	B.H.N.	·62936	8·1231	8·1221	+·0010	8·1226		
,, ,,	14 14	2·8570	0·58	83·3	,,	16·20	81·0	17 15 7	8 46 19	82·3	16·35	80·5	B.H.N.	·62943	8·1236	8·1223	+·0013	8·1229	8·1192	3·7436
,, 18	11 55	2·8568	0·59	80·0	+2·2	17·06	77·1	17 16 7	8 46 41	79·3	16·95	77·8	N.	·62927	8·1203	8·1201	+·0002	8·1202		
,, ,,	15 17	2·8585	0·61	80·9	,,	16·46	79·4	17 16 0	8 46 45	80·5	16·60	78·9	N.	·62907	8·1154	8·1143	+·0011	8·1148		
,, 26	12 26	2·8589	0·70	85·7	+2·7	16·40	82·8	17 14 40	8 46 7	85·0	16·22	83·5	B.H.N.	·62916	8·1191	8·1178	+·0013	8·1184		
,, ,,	15 24	2·8590	0·70	85·7	,,	15·76	84·0	17 14 45	8 46 5	85·4	15·85	84·0	B.H.N.	·62926	8·1184	8·1176	+·0008	8·1180		
MARCH 4	12 9	2·8564	0·66	79·5	+2·8	17·08	78·3	17 15 25	8 46 15	79·7	16·98	78·9	N.	·62911	8·1231	8·1236	−·0005	8·1233		
,, ,,	15 32	2·8571	0·68	78·5	,,	16·27	80·1	17 15 52	8 46 35	79·9	16·52	79·9	N.	·62917	8·1182	8·1180	+·0002	8·1181		
,, 11	13 11	2·8575	0·84	82·8	+3·2	16·76	80·2	17 14 45	8 45 52	83·0	16·58	80·9	B.H.N.	·62904	8·1219	8·1229	−·0010	8·1224		
,, ,,	14 59	2·8585	0·84	83·8	,,	16·18	81·9	17 15 5	8 46 12	83·2	16·35	81·6	B.H.N.	·62916	8·1186	8·1182	+·0004	8·1184		
,, 18	12 0	2·8569	0·89	82·3	+2·6	17·00	79·7	17 14 40	8 46 0	82·7	16·83	80·3	N.	·62916	8·1238	8·1234	+·0004	8·1236	8·1204	3·7442
,, ,,	15 6	2·8581	0·81	82·9	,,	16·15	82·4	17 14 56	8 46 7	83·5	16·33	82·0	N.	·62916	8·1191	8·1190	+·0001	8·1190		
,, 25	12 20	2·8581	0·87	84·4	+2·7	16·67	81·7	17 14 10	8 45 50	84·6	16·41	82·2	B.H.N.	·62916	8·1223	8·1212	+·0011	8·1217		
,, ,,	15 22	2·8592	0·80	84·7	,,	15·80	83·4	17 14 34	8 46 1	85·2	15·98	82·9	B.H.N.	·62909	8·1176	8·1167	+·0009	8·1171		

April	2	12	16	2·8572	0·89	81·3	+3·5	17·07	79·1	17	15	26	8	46	18	81·2	16·75	79·9	N.	·62906	8·1206	8·1208	−·0002	8·1207	8·1181	3·7431
,,	,,	15	6	2·8585	0·89	81·8	,,	16·12	81·6	17	15	50	8	46	25	82·3	16·34	81·2	N.	·62914	8·1148	8·1156	−·0008	8·1152		
,,	9	12	12	2·8588	0·85	83·6	+2·2	15·65	82·1	17	15	10	8	46	1	84·0	15·64	82·6	S.	·62907	8·1165	8·1178	−·0013	8·1171		
,,	,,	14	7	2·8612	0·89	85·2	,,	15·20	83·3	17	15	12	8	46	13	84·8	15·62	82·9	S.	·62890	8·1100	8·1100	·0000	8·1100		
,,	15	12	1	2·8586	0·90	87·7	+2·3	16·22	86·3	17	12	44	8	44	58	88·2	16·01	86·8	N.	·62890	8·1259	8·1261	−·0002	8·1260		
,,	,,	15	19	2·8615	0·94	88·9	,,	14·95	87·5	17	14	0	8	45	42	88·7	15·19	87·3	N.	·62894	8·1133	8·1126	+·0007	8·1129		
,,	22	11	54	2·8594	0·85	88·0	+2·6	15·89	85·1	17	12	42	8	45	10	88·8	15·81	85·6	B.H.N.	·62893	8·1236	8·1221	+·0015	8·1228		
,,	,,	14	59	2·8614	0·89	89·4	,,	15·25	86·8	17	13	22	8	45	28	89·6	15·40	86·4	B.H.N.	·62885	8·1156	8·1143	+·0013	8·1149		
,,	29	11	26	2·8594	0·85	89·0	+2·5	15·90	87·7	17	12	39	8	44	56	88·9	15·75	88·0	S.B.B.	·62887	8·1246	8·1247	−·0001	8·1246		
,,	,,	14	34	2·8606	0·88	89·8	,,	15·02	89·0	17	13	42	8	45	33	89·8	15·31	88·8	S.B.B.	·62923	8·1167	8·1161	+·0006	8·1164		
May	6	11	38	2·8605	0·80	89·6	+2·4	15·65	86·9	17	12	51	8	45	1	90·0	15·40	87·6	S.B.B.	·62877	8·1199	8·1201	−·0002	8·1200	8·1169	3·7425
,,	,,	14	42	2·8619	0·84	90·7	,,	14·45	88·9	17	13	38	8	45	27	90·6	14·89	88·5	S.B.B.	·62910	8·1135	8·1133	+·0002	8·1134		
,,	13	11	51	2·8593	0·90	88·6	+3·0	15·50	87·5	17	12	46	8	45	0	88·0	15·57	87·9	S.B.B.	·62896	8·1247	8·1247	·0000	8·1247		
,,	,,	14	55	2·8604	0·92	88·9	,,	15·08	88·9	17	14	2	8	45	43	88·9	15·36	88·7	S.B.B.	·62923	8·1161	8·1156	+·0005	8·1158		
,,	20	12	24	2·8614	0·89	91·9	+2·7	15·09	89·2	17	12	2	8	44	50	92·5	15·01	89·7	B H.N.	·62880	8·1201	8·1186	+·0015	8·1193		
,,	,,	15	10	2·8618	0·90	92·2	,,	14·76	90·7	17	12	30	8	45	5	92·6	14·87	90·5	B.H,N.	·62891	8·1175	8·1158	+·0017	8·1166		
,,	27	12	7	2·8612	0·91	87·6	+3·5	15·50	84·6	17	14	5	8	45	47	87·3	15·45	84·9	S.B.B.	·62878	8·1141	8·1132	+·0009	8·1136		
,,	,,	14	51	2·8615	0·92	88·6	,,	15·05	85·7	17	14	30	8	45	57	87·5	15·22	85·4	S.B.B.	·62897	8·1124	8·1119	+·0005	8·1121		
June	3	11	56	2·8610	0·89	89·3	+3·2	15·08	87·5	17	12	36	8	44	53	89·7	15·05	87·9	S.	·62862	8·1195	8·1190	+·0005	8·1192	8·1194	3·7437
,,	,,	14	49	2·8614	0·88	89·0	,,	14·58	88·8	17	12	35	8	44	52	90·9	14·77	88·5	S.	·62867	8·1173	8·1175	−·0002	8·1174		
,,	10	12	7	2·8615	0·86	89·6	+2·7	14·80	89·7	17	12	28	8	44	52	89·8	14·72	90·1	B.H.N.	·62851	8·1190	8·1188	+·0002	8·1189		
,,	,,	15	6	2·8621	0·85	91·6	,,	14·50	91·0	17	12	17	8	44	48	91·4	14·58	90·8	B.H.N.	·62861	8·1182	8·1180	+·0002	8·1181		
,,	17	12	16	2·8599	0·88	86·0	+3·1	16·01	83·6	17	12	12	8	44	50	87·5	15·85	83·9	S.	·62836	8·1234	8·1225	+·0009	8·1229		
,,	,,	15	5	2·8612	0·86	87·2	,,	15·17	85·1	17	12	17	8	44	52	88·2	15·51	84·7	S.	·62841	8·1199	8·1190	+·0009	8·1194		
,,	24	12	13	2·8592	0·85	85·3	+3·2	15·60	83·5	17	12	46	8	45	2	86·5	15·56	83·7	B.H.N.	·62859	8·1236	8·1234	+·0002	8·1235		
,,	,,	15	11	2·8623	0·85	89·0	,,	14·86	84·6	17	12	48	8	45	3	88·3	15·05	84·2	B.H.N.	·62835	8·1161	8·1160	+·0001	8·1160		
July	1	11	32	2·8597	0·92	86·4	+3·3	15·52	84·4	17	12	5	8	44	39	86·9	15·42	84·6	S.	·62833	8·1253	8·1253	·0000	8·1253	8·1198	3·7439
,,	,,	14	44	2·8611	0·89	86·6	,,	14·80	84·9	17	12	2	8	44	47	87·2	15·05	84·9	S.	·62826	8·1214	8·1203	+·0011	8·1208		
,,	8	11	57	2·8600	0·90	87·5	+2·9	15·42	85·5	17	12	2	8	44	35	88·3	15·39	85·9	B·H.N.	·62845	8·1242	8·1247	−·0005	8·1244		
,,	,,	15	15	2·8624	0·90	90·3	,,	14·75	86·6	17	12	15	8	44	45	89·4	14·99	86·5	B.H.N.	·62838	8·1180	8·1180	·0000	8·1180		
,,	15	11	50	2·8581	0·92	82·5	+3·6	16·05	81·1	17	12	57	8	45	13	83·2	15·95	81·3	S.	·62845	8·1266	8·1257	+·0009	8·1261		
,,	,,	15	4	2·8599	0·89	83·6	,,	15·37	81·6	17	13	27	8	45	30	83·6	15·60	81·3	S.	·62845	8·1203	8·1190	+·0013	8·1196		
,,	22	12	33	2·8593	0·98	85·5	+3·6	15·88	82·6	17	14	0	8	45	45	85·7	15·67	82·9	B.H.N.	·62883	8·1193	8·1184	+·0009	8·1188		
,,	,,	15	49	2·8603	0·94	85·9	,,	15·10	83·5	17	13	33	8	45	42	87·5	15·31	83·4	B.H.N.	·62887	8·1169	8·1147	+·0022	8·1158		
,,	29	11	40	2·8597	0·82	83·3	+3·3	15·23	82·5	17	14	59	8	46	14	82·9	15·24	82·4	S.B.B.	·62878	8·1156	8·1145	+·0011	8·1150		
,,	,,	14	56	2·8596	0·82	82·4	,,	15·27	82·4	17	15	6	8	46	17	82·7	15·33	82·4	S.B.B.	·62878	8·1147	8·1137	+·0010	8·1142		
August	5	12	7	2·8607	0·72	84·8	+3·5	15·20	82·8	17	14	30	8	46	2	84·9	15·23	82·8	B.H.N.	·62871	8·1143	8·1130	+·0013	8·1136	8·1154	3·7418
,,	,,	15	15	2·8605	0·80	85·6	,,	15·00	83·6	17	13	55	8	45	42	86·5	15·09	83·3	B.H.N.	·62872	8·1160	8·1150	+·0010	8·1155		
,,	12	11	34	2·8597	0·93	86·1	+3·2	15·38	83·9	17	13	22	8	45	14	86·5	15·30	84·3	S.	·62867	8·1204	8·1210	−·0006	8·1207		
,,	,,	14	41	2·8610	0·91	86·9	,,	14·86	85·0	17	13	37	8	45	23	87·2	15·13	84·9	S.	·62871	8·1160	8·1161	−·0001	8·1160		
,,	19	12	24	2·8586	0·88	82·9	+2·8	15·40	83·5	17	14	37	8	46	2	83·9	15·41	83·3	S.	·62894	8·1186	8·1178	+·0008	8·1182		
,,	,,	15	10	2·8596	0·90	82·5	,,	15·65	83·3	17	14	52	8	46	10	83·5	15·28	83·4	S.	·62885	8·1147	8·1137	+·0010	8·1142		
,,	27	11	39	2·8597	0·85	82·2	+2·7	15·13	81·4	17	15	15	8	46	4	82·5	15·15	81·7	S.B.B.	·62869	8·1137	8·1150	−·0013	8·1143		
,,	,,	15	7	2·8605	0·83	82·4	,,	14·79	82·0	17	15	22	8	46	8	83·4	14·99	81·9	S.B.B.	·62871	8·1105	8·1117	−·0012	8·1111		

1903. Date.	Civil Time, Mean.	Magnet N. 23 *a*. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 *c* by N. 23 *a* at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0.8}$)	1·0 foot ($X_{1.0}$)	Difference. $X_{0.8}-X_{1.0}$	Mean. $\frac{X_{0.8}+X_{1.0}}{2}$	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc.div.	°	s.		°	° ′ ″	° ′ ″	°		°								
Sept. 2	12 1	2·8601	0·81	83·7	+3·1	15·58	81·9	17 15 5	8 46 5	83·1	15·56	82·0	S.	·62870	8·1141	8·1147	−·0006	8·1144		
,, ,,	15 8	2·8602	0·80	83·0	,,	15·16	82·0	17 15 10	8 46 10	83·1	15·37	82.0	S.	·62877	8·1130	8·1132	−·0002	8·1131		
,, 9	13 49	2·8615	0·77	88·1	+3·3	14·87	85·4	17 13 32	8 45 32	87·3	14·81	85·7	S.B.B.	·62861	8·1161	8·1150	+·0011	8·1155		
,, ,,	15 41	2·8605	0·73	86·2	,,	14·62	85·5	17 14 0	8 45 48	86·6	14·72	85·7	S.B.B.	·62887	8·1161	8·1148	+·0013	8·1154		
,, 16	12 10	2·8623	0·64	87·0	+3·2	14·60	85·9	17 12 42	8 45 7	87·6	14·54	86·2	S.	·62845	8·1158	8·1147	+·0011	8·1152		
,, ,,	14 44	2·8621	0·59	87·4	,,	14·49	86·8	17 13 27	8 45 25	87·8	14·47	86·9	S.	·62843	8·1139	8·1133	+·0006	8·1136	8·1123	3·7404
,, 23	13 13	2·8607	0·90	84·0	+3·1	14·71	83·7	17 15 12	8 46 22	83·4	14·24	83·7	S.B.B.	·62848	8·1119	8·1107	+·0012	8·1113		
,, ,,	15 1	2·8625	0·86	84·4	,,	13·88	84·0	17 16 0	8 46 49	84·3	14·11	83·8	S.B.B.	·62884	8·1046	8·1029	+·0017	8·1037		
,, 30	11 53	2·8614	0·99	87·5	+2·8	14·83	85·2	17 14 45	8 46 0	87·5	14·78	85·5	S.	·62890	8·1105	8·1104	+·0001	8·1104		
,, ,,	14 25	2·8616	0·96	87·1	,,	14·52	86·1	17 14 35	8 46 0	87·2	14·64	85·9	S.	·62883	8·1105	8·1098	+·0007	8·1101		
Oct. 7	11 46	2·8599	0·75	86·8	+3·1	15·39	84·9	17 12 6	8 44 43	85·9	15·20	85·3	S.B.B.	·62826	8·1262	8·1259	+·0003	8·1260		
,, ,,	15 22	2·8622	0·81	88·7	,,	14·67	85·7	17 12 19	8 44 50	86·6	14·94	85·6	S.B.B.	·62817	8·1197	8·1193	+·0004	8·1195		
,, 14	11 59	2·8627	0·88	87·5	+4·0	14·10	86·1	17 15 17	8 46 15	87·6	14·01	86·7	S.	·62878	8·1049	8·1049	·0000	8·1049		
,, ,,	15 12	2·8642	0·86	88·2	,,	13·59	87·0	17 15 32	8 46 30	88·2	13·57	87·0	S.	·62865	8·1001	8·0990	+·0011	8·0995	8·1147	3·7415
,, 21	11 38	2·8609	0·86	89·0	+2·2	15·23	86·3	17 12 46	8 44 58	88·6	15·09	86·7	S.B.B.	·62855	8·1201	8·1203	−·0002	8·1202		
,, ,,	13 35	2·8615	0·90	89·6	,,	14·72	87·0	17 12 50	8 45 1	89·0	14·83	86·9	S.B.B.	·62859	8·1182	8·1184	−·0002	8·1183		
,, 28	12 29	2·8612	1·39	88·0	+3·1	15·38	85·0	17 12 22	8 45 10	88·4	15·36	85·6	V.V.N.	·62841	8·1191	8·1163	+·0028	8·1177		
,, ,,	15 14	2·8624	1·41	87·7	,,	14·61	86·9	17 12 32	8 45 17	90·2	14·78	86·5	V.V.N.	·62833	8·1132	8·1102	+·0030	8·1117		
Nov. 4	12 59	2·8628	0·90	85·8	+3·1	13·89	87·0	17 15 45	8 46 51	85·8	13·67	87·0	S.B.B.	·62865	8·1031	8·1003	+·0028	8·1017		
,, ,,	15 23	2·8636	0·91	87·0	,,	13·38	87·3	17 15 53	8 46 56	85·9	13·50	87·1	S.B.B.	·62877	8·1014	8·0984	+·0030	8·0999		
,, 11	12 22	2·8642	0·94	88·2	+3·3	14·82	84·7	17 12 28	8 45 17	90·6	14·44	85·4	V.V.N.	·62787	8·1092	8·1059	+·0033	8·1075		
,, ,,	14 50	2·8635	1·17	87·9	,,	13·76	87·0	17 13 15	8 45 36	90·7	13·99	86·6	V.V.N.	·62841	8·1077	8·1049	+·0028	8·1063	8·1096	3·7392
,, 18	11 54	2·8607	1·28	84·9	+2·7	15·42	81·6	17 14 5	8 45 40	85·4	15·12	82·5	S.B.B.	·62841	8·1143	8·1143	·0000	8·1143		
,, ,,	15 20	2·8618	1·26	87·5	,,	14·71	84·0	17 13 52	8 45 32	87·5	14·80	83·8	S.B.B.	·62852	8·1122	8·1124	−·0002	8·1123		
,, 25	11 39	2·8611	1·31	83·5	+2·4	15·98	79·9	17 12 27	8 44 42	85·4	15·80	80·5	V.V.N.	·62774	8·1182	8·1193	−·0011	8·1187		
,, ,,	15 0	2·8614	1·61	85·0	,,	14·98	82·6	17 12 45	8 44 59	86·6	15·38	82·0	V.V.N.	·62813	8·1158	8·1158	·0000	8·1158		
Dec. 2	11 50	2·8613	1·26	86·6	+2·8	14·61	83.1	17 16 21	8 47 1	84·5	14·36	83·6	S.B.B.	·62906	8·1064	8·1046	+·0018	8·1055		
,, ,,	15 12	2·8604	1·29	84·6	,,	14·10	84·2	17 16 13	8 46 56	83·9	14·37	84·4	S.B.B.	·62925	8·1081	8·1064	+·0017	8·1072		
,, 9	11 38	2·8611	1·61	84·7	+2·2	15·69	80·9	17 14 12	8 45 55	87·5	15·56	82·0	V.V.N.	·62858	8·1100	8·1085	+·0015	8·1092		
,, ,,	14 5	2·8613	1·60	85·7	,,	15·10	83·4	17 14 12	8 45 55	87·8	15·36	82·7	V.V.N.	·62871	8·1100	8·1085	+·0015	8·1092		
,, 16	11 40	2·8611	1·80	84·5	+2·0	15·47	79·7	17 13 5	8 45 12	86·6	15·38	80·2	V.V.N.	·62809	8·1147	8·1143	+·0004	8·1145	8·1093	3·7390
,, ,,	14 7	2·8616	1·83	85·4	,,	14·96	82·2	17 13 7	8 45 19	87·7	15·15	81·3	V.V.N.	·62819	8·1126	8·1115	+·0011	8·1120		
,, 23	12 46	2·8611	1·62	85·1	+2·0	15·81	80·5	17 15 2	8 46 15	87·4	15·50	81·9	V.V.N.	·62877	8·1072	8·1062	+·0010	8·1067		
,, ,,	14 39	2·8613	1·68	84·9	,,	15·16	82·7	17 15 19	8 46 15	87·5	15·35	82·4	V.V.N.	·62887	8·1053	8·1053	·0000	8·1053		
,, 30	12 39	2·8568	1·70	83·0	+2·0	16·92	77·9	17 16 36	8 47 8	83·4	16·12	79·3	S.B.B.	·62954	8·1152	8·1135	+·0017	8·1143		
,, ,,	15 27	2·8581	1·72	82·1	,,	14·91	81·6	17 16 57	8 47 23	82·8	15 31	80·8	S.B.B	·62968	8·1100	8·1076	+·0024	8·1088		
																		The mean value of the Horizontal Force for the year 1903 = 8·1161		3·7422

Absolute Magnetical Observations.—Table II.

Observations of Absolute Declination.

1903.

1903. Date.	Bombay Civil Time.	Mean Readings. Collimator Magnet. Scale apparently Erect.	Collimator Magnet. Scale apparently Inverted.	Horizontal Circle with Telescope pointed to: Scale of Collimator Magnet.	Horizontal Circle with Telescope pointed to: Tárdeo Chimney.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Monthly Mean. Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	H. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″
Jan. 1	11 22	+1·56	+1·34	16 47 40	196 55 50	0		S.B.B.	19·06	0 18 31		
,, 8	11 22	+1·55	+1·45	16 46 40	196 55 30	0		N.	18·97	0 17 43		
,, 16	11 4	+1·55	+1·31	16 46 10	196 55 30	0		B.H.N.	18·97	0 17 23	19·01	0 18 17
,, 22	11 59	+1·52	+1·42	16 47 30	196 55 50	0		N.	18·98	0 18 13		
,, 29	12 13	+1·55	+1·45	16 48 50	196 55 50	0		B.H.N.	19·09	0 19 33		
Feb. 5	11 18	+1·52	+1·46	16 48 0	196 56 15	0		N.	18·99	0 18 15		
,, 12	11 35	+1·56	+1·29	16 47 40	196 56 10	0		B.H.N.	19·02	0 18 14	19·02	0 18 1
,, 19	11 20	+1·55	+1·29	16 46 15	196 55 50	10E	1·02	N.	18·89	0 16 53		
,, 27	11 46	+1·52	+1·27	16 48 10	196 56 10	0		B.H.N.	19·17	0 18 43		
March 5	11 30	+1·54	+1·37	16 45 45	196 55 50	0		N.	18·91	0 16 32		
,, 12	11 17	+1·55	+1·45	16 48 10	196 55 50	0		B.H.N.	19·01	0 18 53	18·98	0 17 58
,, 19	11 0	+1·47	+1·37	16 48 10	196 55 50	0		B.H.N.	19·02	0 18 53		
,, 26	11 34	+1·45	+1·35	16 46 50	196 55 50	0		B.H.N.	18·98	0 17 33		
April 3	11 42	+1·52	+1·49	16 45 50	196 55 15	0		N.	18·97	0 17 2		
,, 10	12 7	+1·56	+1·36	16 44 20	196 55 40	0		N.	18·79	0 15 20		
,, 16	11 23	+1·52	+1·45	16 46 0	196 55 30	0		N.	18·89	0 17 0	18·86	0 16 29
,, 23	11 41	+1·55	+1·30	16 46 10	196 55 30	0		B.H.N.	18·95	0 17 23		
,, 30	11 30	+1·56	+1·36	16 44 40	196 55 40	0		S.B.B.	18·69	0 15 40		
May 7	11 56	+1·55	+1·35	16 47 20	196 55 30	0		B.H.N.	18·70	0 14 30		
,, 14	11 6	+1·56	+1·46	16 44 40	196 55 40	0		S.B.B.	18·82	0 15 33	18·76	0 15 8
,, 21	12 4	+1·55	+1·29	16 44 55	196 55 50	0		B.H.N.	18·81	0 15 49		
,, 28	11 5	+1·55	+1·21	16 44 0	196 56 10	0		S.B.B.	18·71	0 14 39		
June 4	10 59	+1·56	+1·45	16 46 0	196 56 2	0		S.	18·86	0 16 31		
,, 11	11 49	+1·55	+1·40	16 44 0	196 56 0	0		B.H.N.	18·79	0 14 36	18·84	0 16 0
,, 18	11 8	+1·55	+1·41	16 45 50	196 56 0	0		S.	18·83	0 16 26		
,, 25	11 43	+1·55	+1·22	16 46 5	196 56 10	11E	1·00	B.H.N.	18·89	0 16 26		
July 2	11 1	+1·56	+1·37	16 47 5	196 55 40	0		S.	19·04	0 18 3		
,, 9	9 12	+1·54	+1·29	16 47 30	196 56 10	0		B.H.N.	19·03	0 18 3		
,, 16	11 11	+1·56	+1·39	16 45 10	196 55 25	0		S.B.B.	18·75	0 16 22	18·86	0 16 36
,, 23	11 37	+1·52	+1·31	16 46 50	196 57 10	0		B.H.N.	18·81	0 16 20		
,, 30	11 43	+1·56	+1·44	16 45 40	196 58 0	0		S.B.B.	18·67	0 14 14		
Aug. 6	11 32	+1·54	+1·31	16 44 20	196 57 10	0		B.H.N.	18·59	0 13 51		
,, 14	11 9	+1·56	+1·31	16 44 10	196 55 10	0		S.	18·74	0 15 43	18·73	0 15 29
,, 20	13 46	+1·56	+1·36	16 45 30	196 55 15	0		S.	18·89	0 16 55		
,, 28	11 40	+1·54	+1·41	16 44 10	196 55 15	0		S.B.B.	18·69	0 15 29		
Sept. 3	11 30	+1·55	+1·30	16 42 50	196 55 0	12W	1·00	S.	18·63	0 14 51		
,, 10	11 29	+1·52	+1·42	16 38 55	196 52 0	0		S.B.B.	18·45	0 13 23	18·73	0 15 26
,, 17	10 53	+1·55	+1·37	16 41 20	196 52 0	0		S.	18·79	0 15 58		
,, 25	9 47	+1·54	+1·45	16 43 10	196 52 10	0		S.B.B.	19·05	0 17 32		
Oct. 1	10 0	+1·54	+1·44	16 42 40	196 52 10	0		S.	18·92	0 17 3		
,, 8	10 49	+1·52	+1·47	16 42 35	196 52 37	0		S.B.B.	18·84	0 16 27		
,, 15	10 59	+1·52	+1·42	16 43 50	196 52 35	0		V.V.N.	18·97	0 17 48	18·88	0 16 48
,, 22	11 24	+1·52	+1·45	16 41 40	196 52 40	0		S.B.B.	18·70	0 15 30		
,, 29	10 59	+1·52	+1·22	16 42 35	196 52 10	0		V.V.N.	18·98	0 17 12		
Nov. 5	11 37	+1·60	+1·17	16 43 20	196 54 27	0		S.B.B.	18·81	0 15 48		
,, 12	10 48	+1·48	+1·45	16 44 10	196 53 50	0		V.V.N.	18·85	0 16 47	18·90	0 16 45
,, 19	10 32	+1·54	+1·44	16 45 0	196 54 15	0		S.B.B.	18·97	0 17 18		
,, 26	10 42	+1·52	+1·17	16 44 30	196 54 10	0		V.V.N.	18·99	0 17 9		
Dec. 3	11 0	+1·56	+1·29	16 44 20	196 54 10	0		S.B.B.	18·90	0 16 54		
,, 10	11 3	+1·52	+1·19	16 45 20	196 54 30	0		V.V.N.	18·98	0 17 38		
,, 17	11 23	+1·54	+1·31	16 45 10	196 54 55	0		S.B.B.	18·90	0 16 56	18·91	0 16 54
,, 24	11 4	+1·55	+1·16	16 44 10	196 54 50	0		V.V.N.	18·87	0 16 12		
,, 31	10 45	+1·55	+1·16	16 45 30	196 55 30	0		V.V.N.	18·89	0 16 52		

The Mean Declination for the year 1903 = 0° 16′ 39″

Absolute Magnetical Observations.—Table III.

OBSERVATIONS OF INCLINATION, 1903.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and two 3½-inch Needles, Nos. 1 and 2, by Dover Charlton.

1903. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	H. m.	H. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 2	14 15	15 30	S.B.B.	2	22 15·2	21 48·2	21 34·9	21 4·1	21 40·6		
„ 6	10 50	12 5	S.B.B.	2	22 16·7	21 38·1	21 36·7	21 3·7	21 38·8	No. 1	
„ 9	14 20	15 45	N.	1	22 34·6	22 9·7	21 8·5	20 47·0	21 39·9	21 40·4	
„ 13	11 22	13 0	B.H.N.	1	22 36·7	22 1·6	21 11·0	20 50·7	21 40·0		
„ 16	14 47	16 0	B.H.N.	2	22 17·5	21 46·5	21 40·1	21 2·9	21 41·7		21 40·7
„ 21	9 0	10 35	B.H.N.	2	22 20·0	21 41·4	21 38·7	21 5·7	21 41·4	No. 2	
„ 23	14 20	15 42	N.	1	22 35·6	22 12·9	21 11·1	20 46·6	21 41·5	21 40·9	
„ 27	11 5	12 30	B.H.N.	1	22 38·7	22 6·9	21 12·5	20 43·7	21 40·4		
„ 30	15 10	16 30	B.H.N.	2	22 9·4	21 52·4	21 38·0	21 8·6	21 42·1		
FEB. 3	12 0	13 35	N.	2	22 8·0	21 51·1	21 32·0	21 11·0	21 40·5		
„ 6	14 33	15 50	N.	1	22 32·7	22 14·2	21 6·3	20 46·3	21 39·9	No. 1	
„ 10	11 25	12 35	B.H.N.	1	22 33·2	22 13·2	21 7·7	20 46·3	21 40·1	21 39·9	
„ 13	15 10	16 15	B.H.N.	2	22 12·0	21 50·6	21 32·7	21 8·6	21 41·0		21 40·3
„ 17	11 30	12 58	S.B.B.	2	22 8·7	21 48·9	21 34·7	21 9·5	21 40·4		
„ 20	14 52	16 20	N.	1	22 38·7	22 15·6	21 6·1	20 41·5	21 40·5	No. 2	
„ 24	11 25	12 30	B.H.N.	1	22 37·7	22 12·7	21 6·5	20 40·5	21 39·3	21 40·7	
„ 27	15 5	16 5	B.H.N.	2	22 15·0	21 48·7	21 36·6	21 3·9	21 41·0		
MAR. 3	12 10	13 32	N.	2	22 15·0	21 48·2	21 35·2	21 2·9	21 40·3		
„ 6	14 32	15 51	N.	1	22 50·9	22 2·5	21 21·2	20 31·4	21 41·5	No. 1	
„ 10	13 10	14 15	B.H.N.	1	22 48·7	22 1·7	21 19·0	20 30·9	21 40·1	21 41·3	
„ 13	15 0	16 0	B.H.N.	2	22 22·4	21 44·4	21 40·0	20 59·7	21 41·6		
„ 17	13 34	14 58	N.	2	22 20·0	21 45·9	21 42·2	20 57·1	21 41·3		21 41·3
„ 20	14 55	16 13	N.	1	22 54·2	22 4·5	21 18·5	20 32·5	21 42·4	No. 2	
„ 24	13 5	14 0	B.H.N.	1	22 50·5	22 8·7	21 13·2	20 32·6	21 41·2	21 41·3	
„ 27	15 5	16 10	B.H.N.	2	22 23·9	21 44·5	21 41·7	20 57·9	21 42·0		
APR. 1	11 39	13 0	N.	2	22 22·1	21 43·9	21 42·1	20 51·6	21 39·9		
„ 3	14 37	16 2	N.	1	22 43·7	22 11·2	21 10·7	20 34·7	21 40·1		
„ 8	11 48	13 13	S.	1	22 54·0	22 3·5	21 14·9	20 25·5	21 39·5	No. 1	
„ 10	14 15	15 35	N.	2	22 25·9	21 46·5	21 42·6	20 55·1	21 42·5	21 41·0	
„ 14	11 49	13 11	N.	2	22 26·5	21 39·0	21 45·4	20 47·2	21 39·5		
„ 17	14 31	15 54	N.	1	22 55·5	22 10·1	21 17·2	20 29·0	21 42·9		21 40·7
„ 21	11 5	12 7	B.H.N.	1	22 35·5	21 36·7	21 48·2	20 45·2	21 41·4	No. 2	
„ 24	15 5	16 0	B.H.N.	2	23 7·2	22 7·0	20 56·2	20 43·0	21 43·3	21 40·4	
„ 28	11 11	12 20	S.B.B.	2	22 16·7	21 41·7	21 41·2	20 48·4	21 37·0		

1903. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 1	14 52	16 1	S.B.B.	1	22 49·0	22 9·7	21 16·5	20 30·2	21 41·3		
„ 5	11 21	12 8	B.H.N.	1	23 4·9	22 4·7	21 14·0	20 14·9	21 39·6	No. 1 ° ′	
„ 8	14 40	15 33	B.H.N	2	22 28·5	21 43·7	21 43·2	20 50·5	21 41·5	21 41·0	
„ 12	11 0	12 7	S.B.B.	2	22 14·9	21 40·2	21 48·0	20 53·9	21 39·2		
„ 15	14 42	15 50	S.B.B.	1	22 42·9	22 12·2	21 9·6	20 34·6	21 39·8		21 41·0
„ 19	11 40	12 32	B.H.N.	1	23 1·0	22 15·0	21 11·0	20 16·7	21 40·9		
„ 22	15 5	16 4	B.H.N.	2	22 35·2	21 48·1	21 40·7	20 51·1	21 43·8	No. 2 ° ′	
„ 26	11 0	12 3	S.B.B.	2	22 21·2	21 44·6	21 43·7	20 49·9	21 39·8	21 41·1	
„ 29	14 20	15 48	S.	1	22 51·6	22 18·4	21 17·0	20 27·2	21 43·5		
JUNE 2	11 20	12 40	S.	1	22 56·4	22 17·6	21 10·1	20 20·5	21 41·1		
„ 5	14 23	15 37	S.	2	22 28·5	21 51·6	21 41·0	20 50·5	21 42·9	No. 1 ° ′	
„ 9	11 43	12 30	B.H.N.	2	22 27·7	21 51·0	21 43·5	20 49·2	21 42·8	21 41·2	
„ 12	14 20	15 50	B.H.N.	1	23 10·7	22 17·1	21 9·7	20 11·2	21 42·2		
„ 16	11 36	12 51	S.	1	23 0·1	22 18·0	21 2·4	20 17·5	21 39·5		21 42·0
„ 19	14 20	15 36	S.	2	22 30·7	21 53·7	21 42·5	20 51·2	21 44·5	No. 2 ° ′	
„ 23	12 0	12 53	B.H.N.	2	22 26·4	21 52·9	21 36·9	20 49·4	21 41·4	21 42·9	
„ 27	14 55	15 48	B.H.N.	1	23 5·4	22 21·9	20 50·5	20 33·2	21 42·7		
„ 30	11 58	13 18	S.	1	22 54·1	22 21·6	21 1·9	20 24·5	21 40·5		
JULY 3	14 52	16 0	S.	2	22 29·2	21 55·5	21 43·2	20 55·9	21 45·9		
„ 7	11 30	12 30	B.H.N.	2	22 31·5	21 54·0	21 41·6	20 45·2	21 43·1	No. 1 ° ′	
„ 10	15 10	16 25	B.H.N.	1	22 56·9	22 25·0	21 0·2	20 31·1	21 43·3	21 43·1	
„ 14	11 10	12 15	S.B.B.	1	22 54·2	22 1·0	21 25·4	20 23·6	21 41·0		21 43·7
„ 17	14 50	15 52	S.B.B.	2	22 26·0	21 45·9	21 42·1	20 55·6	21 42·4		
„ 21	13 5	14 11	B.H.N.	2	22 33·9	21 55·7	21 32·7	20 49·6	21 43·0		
„ 24	15 8	16 18	B.H.N.	1	23 5·1	22 26·7	21 6·4	20 19·7	21 44·5	No. 2 ° ′	
„ 28	11 35	12 47	S.B.B.	1	23 5·1	22 23·4	21 7·0	20 19·6	21 43·8	21 44·2	
„ 31	15 0	16 15	S.B.B.	2	22 39·1	22 2·2	21 33·4	20 51·0	21 46·4		
AUG. 4	11 50	12 55	B.H.N.	2	22 34·4	21 56·6	21 36·6	20 52·5	21 45·0		
„ 8	14 4	15 3	B.H.N.	1	23 7·1	22 27·0	21 15·5	20 18·7	21 47·1	No. 1 ° ′	
„ 11	11 49	13 0	S.	1	23 1·4	22 19·2	21 12·0	20 22·1	21 43·7	21 44·9	
„ 14	14 3	15 2	S.	2	22 34·7	22 0·5	21 35·6	20 56·1	21 46·7		
„ 18	12 24	13 34	S.	2	22 38·4	21 52·4	21 31·7	20 57·6	21 45·0		21 45·4
„ 21	14 26	15 38	S.	1	22 58·6	22 19·9	21 19·1	20 25·4	21 45·7	No. 2 ° ′	
„ 25	11 25	12 35	S.B.B.	1	22 55·2	22 19·5	21 13·1	20 25·5	21 43·3	21 45·8	
„ 28	15 2	16 15	S.B.B.	2	22 35·4	21 54·2	21 38·0	20 58·1	21 46·4		

1903. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
SEPT. 1	12 2	13 9	S.	2	22 37·0	21 53·5	21 32·4	20 55·4	21 44·6		
„ 4	15 7	16 10	S.	1	23 6·4	22 16·1	21 10·9	20 23·5	21 44·2	No. 1	
„ 8	11 17	12 32	S.B.B.	1	23 :0·0	22 14·5	21 11·9	20 27·9	21 43·6	° ′ 21 44·5	
„ 11	14 59	16 15	S.B.B.	2	22 32·5	21 58·4	21 41·7	20 59·5	21 48·0		
„ 15	12 32	13 47	S.	2	22 34·6	21 52·2	21 42·6	20 48·4	21 44·4		21 45·3
„ 18	15 0	16 15	V.V.N.	1	23 2·2	22 15·0	21 17·1	20 32·4	21 46·7	No. 2	
„ 22	11 22	12 29	V.V.N.	1	22 58·9	22 15·5	21 9·5	20 30·5	21 43·6	° ′ 21 45·8	
„ 25	14 42	16 10	V.V.N	2	22 33·0	21 56·0	21 42·5	20 59·0	21 47·6		
„ 29	11 18	12 21	S.	2	22 28·2	21 49·1	21 43·5	20 57·5	21 44·6		
OCT. 2	14 49	15 59	V.V.N.	1	23 1·6	22 26·0	21 7·9	20 30·9	21 46·6		
„ 6	11 2	12 24	S.B.B.	1	22 58·2	22 11·2	21 8·0	20 31·6	21 42·2	No. 1	
„ 9	14 57	16 1	S.B.B.	2	22 25·7	21 57·6	21 40·9	21 3·1	21 46·8	° ′ 21 44·3	
„ 13	11 23	12 30	V.V.N.	2	22 27·2	22 1·5	21 30·4	21 8·5	21 46·9		
„ 16	14 50	16 10	V.V.N.	1	22 56 8	22 20·5	21 10·5	20 34·2	21 45·5		21 45·4
„ 20	10 25	11 40	V.V.N.	1	22 52·2	22 21·5	21 5·5	20 29·2	21 42·0	No. 2	
„ 23	14 51	15 55	S.B B.	2	22 28·6	21 54·5	21 40·0	21 2·6	21 46·4	° ′ 21 46·9	
„ 27	12 15	13 30	V.V.N.	2	22 37·1	21 55·0	21 40·2	20 57·6	21 47·4		
„ 30	14 45	15 50	V.V.N.	1	23 1·4	22 16·6	21 10·9	20 31·5	21 45·1		
NOV. 3	11 58	13 22	S.B.B	1	22 54·7	22 13·0	21 26·1	20 37·2	21 47·8		
„ 6	14 55	15 53	S.B.B.	2	22 32·9	21 51·2	21 41·7	21 9·2	21 48·8	No. 1	
„ 10	11 25	12 35	V.V.N.	2	22 38·7	21 53·3	21 40·9	20 55·2	21 47·0	° ′ 21 47·9	
„ 13	14 45	15 55	V.V.N.	1	23 2·6	22 24·0	21 14·0	20 35·2	21 48·9		21 47·6
„ 17	11 43	12 45	S.B.B.	1	22 56·7	22 13·6	21 26·0	20 35·6	21 48·0		
„ 20	14 50	15 55	S.B.B.	2	22 29·4	21 54·9	21 38·0	21 4·6	21 46·7	No. 2	
„ 24	11 36	12 41	S.B.B.	2	22 23·7	21 58·7	21 39·7	21 3·9	21 46·5	° ′ 21 47·2	
„ 27	14 40	15 45	V.V.N.	1	23 2·7	22 16·2	21 14·7	20 35·0	21 47·1		
DEC. 1	11 2	12 15	S.B.B.	1	22 57·2	22 15·0	21 26·7	20 32·5	21 47·8		
„ 4	14 51	16 0	S.B.B.	2	22 53·1	21 52·1	21 46·9	20 54·5	21 46·6	No. 1	
„ 8	11 35	12 40	V.V.N.	2	22 34·7	21 55·0	21 49·4	20 55·0	21 48·5	° ′ 21 47·4	
„ 11	15 15	16 20	V.V.N	1	22 59·4	22 8·7	21 34·7	20 32·4	21 48·8		
„ 15	11 2	12 5	S.B B.	1	23 1·6	22 6·5	21 28·0	20 30·0	21 46·5		21 47·6
„ 18	14 50	15 55	S.B.B	2	22 34·7	21 48·7	21 40·9	21 9·2	21 48·4	No. 2	
„ 22	10 50	11 55	V.V.N.	2	22 31·9	21 47·0	21 45·0	21 7·5	21 47·7	° ′ 21 47·8	
„ 25	14 20	15 25	V.V.N.	1	23 2·7	22 5·5	21 30·0	20 36·0	21 48·5		
„ 29	11 33	12 43	S.B.B.	1	22 52·0	22 12·4	21 29·0	20 28·2	21 45·4		

The Mean Dip for the year ... { With Needle No. 1 = ° ′ 21 43·1 / With Needle No. 2 = 21 43·7

The Mean Dip for the year 1903 = ° ′ 21 43·4

Absolute Magnetical Observations—Table III—*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1903.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and two 3½-inch Needles, Nos. 3 and 4, by Dover.

1903. Date.	Bombay Civil Time (0 to 24 hours.) At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′	No. 4 °	° ′
JAN. 30	14 22	17 5	B.H.N.	4	22 12·0	21 10·5	22 24·7	21 16·7	21 46·0	21 46·0	21 46·0
FEB. 3	11 18	14 20	N.	4	22 13·1	21 0·7	22 21·2	21 12·1	21 41·8		
„ 6	13 55	16 30	N.	3	21 29·7	21 14·9	22 16·4	21 37·9	21 42·2	No. 3 °	
„ 10	10 45	13 10	B.H.N.	3	21 38·0	21 14·6	22 15·7	21 38·6	21 41·7	21 41·4	
„ 13	14 25	16 45	B.H.N.	4	22 5·5	21 21·0	22 22·1	21 7·9	21 44·1		21 41·6
„ 17	10 50	13 40	S.B.B.	4	22 10·0	21 5·4	22 26·0	21 4·7	21 41·5		
„ 20	14 14	16 55	N.	3	21 43·5	21 14·9	22 9·7	21 37·5	21 41·4	No. 4 °	
„ 24	10 55	13 5	B.H.N.	3	21 50·0	21 9·2	22 8·7	21 33·0	21 40·2	21 41·8	
„ 27	14 35	16 40	B.H.N.	4	22 13·1	21 9·2	22 3·4	21 13·7	21 39·8		
MAR. 3	11 15	14 25	N.	4	22 19·7	21 14·0	22 24·7	20 57·9	21 44·1		
„ 6	13 56	16 28	N.	3	21 57·2	21 9·5	22 19·9	21 21·0	21 41·9	No. 3 °	
„ 10	12 35	14 45	B.H.N.	3	22 11·0	20 51·5	22 26·5	21 15·2	21 41·0	21 41·2	
„ 13	14 30	16 30	B.H.N.	4	22 31·6	21 1·6	22 8·6	20 56·9	21 39·7		21 40·9
„ 17	12 52	15 42	N.	4	22 27·7	21 2·6	22 16·4	20 53·9	21 40·1	No. 4 °	
„ 20	14 18	16 48	N.	3	22 4·5	21 1·7	22 19·0	21 21·5	21 41·7	21 40·6	
„ 24	12 35	14 30	B.H.N.	3	22 5·5	20 59·0	22 16·1	21 20·9	21 40·4		
„ 27	14 35	16 40	B.H.N.	4	22 35·5	20 53·9	12 16·4	20 53·2	21 38·7		
APR. 1	11 0	13 42	N.	4	22 31·0	21 0·1	22 14·6	20 46·9	21 38·1		
„ 3	14 0	16 40	N.	3	21 56·0	21 14·2	22 28·4	21 16·7	21 43·8	No. 3 °	
„ 8	11 5	14 0	S.	3	21 59·0	21 12·0	22 23·6	21 13·9	21 42·1	21 43·1	
„ 10	13 35	16 17	N.	4	22 25·9	21 21·1	22 16·6	20 52·1	21 43·9		
„ 14	11 9	13 54	N.	4	22 39·6	20 58·9	22 16·5	20 41·2	21 39·0		21 40·9
„ 17	13 50	16 33	N.	3	22 10·0	21 3·4	22 24·5	21 16·5	21 43·6		
„ 21	10 35	12 40	B.H.N.	3	22 41·4	20 57·0	22 21·0	20 52·7	21 43·0	No. 4 °	
„ 24	14 40	16 25	B.H.N.	4	22 17·5	20 45·0	22 20·0	21 17·9	21 40·1	21 39·1	
„ 28	10 38	13 0	S.B.B.	4	22 26·7	20 50·0	22 17·2	20 44·5	21 34·6		
MAY. 1	14 20	16 38	S.B.B.	3	21 54·7	21 15·0	22 20·2	21 15·7	21 41·4		
„ 5	10 55	12 35	B.H.N.	3	22 8·5	20 53·5	22 21·4	21 18·9	21 40·6		
„ 8	14 15	16 0	B.H.N.	4	22 38·5	21 0·5	22 12·5	20 51·5	21 40·7	No. 3 °	
„ 12	10 30	12 41	S.B.B.	4	22 20·2	21 9·9	22 19·1	20 56·1	21 41·3	21 42·2	
„ 15	14 10	16 20	S.B.B.	3	21 56·2	21 14·5	22 26·7	21 15·0	21 43·1		21 41·7
„ 19	11 16	13 0	B.H.N.	3	22 10·6	21 1·4	22 23·5	21 11·5	21 41·7		
„ 22	14 30	16 35	B.H.N.	4	23 3·0	20 40·7	22 12·2	20 53·0	21 42·2	No. 4 °	
„ 26	10 30	12 36	S.B.B.	4	22 43·9	20 54·9	22 18·4	20 42·6	21 39·9	21 41·0	
„ 29	13 42	16 26	S	3	22 1·7	21 9·2	22 26·7	21 19·5	21 44·3		

1903. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JUNE. 2	10 41	13 20	S.	3	22 8·0	21 3·5	22 17·0	21 24·5	21 43·2		
„ 5	13 45	16 18	S.	4	22 57·0	20 38·1	22 11·1	20 55·2	21 40·3	No. 3	
„ 9	11 10	12 55	B.H.N.	4	22 26·2	21 10·0	22 22·0	20 40·0	21 39·5	21 42·7	
„ 12	13 45	16 28	B.H.N.	3	22 9·6	20 58·9	22 18·5	21 28·7	21 43·9		
„ 16	10 47	13 30	S.	3	22 3·9	21 7·7	22 14·2	21 20·7	21 41·6		21 41·9
„ 19	13 40	16 15	S.	4	22 25·9	21 1·0	22 19·1	21 7·9	21 43·5		
„ 23	11 30	13 20	B.H.N.	4	22 37·2	21 2·1	22 1·9	21 1·1	21 40·6	No. 4	
„ 27	14 25	16 15	B.H.N.	3	21 56·5	21 14·6	21 52·1	21 48·5	21 42·9	21 41·0	
„ 30	11 20	13 58	S.	3	21 59·1	21 11·6	22 16·5	21 20·2	21 41·8		
JULY. 3	14 15	16 40	S.	4	22 40·4	20 55·2	22 16·5	21 6·5	21 44·6		
„ 7	11 0	12 58	B.H.N.	4	22 30·2	21 20·0	21 55·9	21 8·2	21 43·6	No. 3	
„ 10	14 30	17 5	B.H.N.	3	21 58·2	21 23·5	22 23·4	21 38·1	21 50·8	21 47·1	
„ 14	10 30	12 55	S.B.B.	3	21 59·5	21 13·9	22 13·4	21 31·5	21 44·6		
„ 17	14 15	16 28	S.B.B.	4	22 26·1	21 22·2	22 14·7	20 52·9	21 44·0		21 45·4
„ 21	12 37	14 40	B.H.N.	4	22 45·7	20 50·4	22 15·2	20 57·6	21 42·2	No. 4	
„ 24	14 40	16 58	B.H.N.	3	22 0·0	21 17·6	22 29·4	21 17·6	21 46·1	21 44·1	
„ 28	11 0	13 25	S.B.B.	3	22 2·2	21 20·7	22 16·1	21 28·0	21 46·8		
„ 31	14 20	16 55	S.S.B.	4	22 51·2	20 59·5	22 13·6	20 59·6	21 46·0		
AUG. 4	11 17	13 20	B.H.N.	4	22 30·6	21 18·7	21 48·1	21 8·5	21 41·5	No. 3	
„ 8	13 35	15 35	B.H.N.	3	22 6·9	21 8·6	22 19·9	21 18·2	21 43·4	21 44·7	
„ 11	11 9	13 41	S.	3	22 8·0	21 17·1	22 14·9	21 25·1	21 46·3		
„ 14	13 30	15 40	S.	4	22 51·5	20 53·2	22 10·4	21 9·2	21 46·1		
„ 18	11 43	14 10	S.	4	22 38·4	20 59·1	22 12·2	21 11·2	21 45·2		21 44·6
„ 21	13 48	16 14	S.	3	22 0·4	21 17·0	22 16·4	21 29·2	21 45·7	No. 4	
„ 25	10 50	13 10	S.B.B.	3	21 59·1	21 15·1	22 14·2	21 26·1	21 43·6	21 44·5	
„ 28	14 20	16 45	S.B.B.	4	22 37·2	21 1·5	22 13·5	21 9·2	21 45·3		
SEPT. 1	11 25	13 42	S.	4	22 27·2	21 8·0	22 10·6	21 7·9	21 43·4		
„ 4	14 36	16 45	S.	3	22 3·9	21 15·6	22 15·2	21 28·4	21 45·8	No. 3	
„ 8	10 47	13 3	S.B.B.	3	22 1·0	21 8·5	22 14·9	21 35·1	21 44·9	21 44·0	
„ 11	14 17	16 44	S.B.B.	4	22 33·9	21 1·7	22 15·9	21 10·0	21 45·4		
„ 15	11 50	14 21	S.	4	22 36·7	20 59·5	22 12·7	21 9·5	21 44·6		21 44·2
„ 18	14 19	16 50	V.V.N.	3	22 7·6	20 57·2	22 24·1	21 23·0	21 43·0		
„ 22	10 51	13 2	V.V.N.	3	22 0·9	21 10·2	22 10·0	21 27·6	21 42·2	No. 4	
„ 25	14 9	16 47	V.V.N.	4	22 33·5	21 0·2	22 17·5	21 9·4	21 45·1	21 44·5	
„ 29	10 45	12 52	S.	4	22 38·1	21 3·2	22 13·9	21 9·9	21 43·8		

1903. Date.	Bombay Civil Time (0 to 24 hours). At commencement.		At conclusion.		Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.		End of Needle Dipping. A. Face of Circle. West.		End of Needle Dipping. B. Face of Circle. East.		End of Needle Dipping. B. Face of Circle. West.		Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h.	m.	h.	m.			°	′	°	′	°	′	°	′	°	′	° ′
Oct. 2	14	12	16	32	V.V.N.	3	22	2·5	21	22·0	22	15·2	21	27·0	21	46·7	
,, 6	10	25	12	54	S.B.B.	3	22	1·0	21	8·6	22	9·0	21	27·0	21	41·4	No. 3 21 45·1
,, 9	14	20	16	34	S.B.B.	4	22	31·2	21	16·2	22	13·0	21	2·9	21	45·8	
,, 13	10	50	13	5	V.V.N.	4	22	39·1	21	16·7	22	4·9	21	0·4	21	45·3	
,, 16	14	15	16	50	V.V.N.	3	21	59·8	21	13·5	22	14·0	21	36·0	21	45·8	21 45·3
,, 20	9	50	12	10	V.V.N.	3	22	1·2	21	16·5	22	14·0	21	31·2	21	45·7	No. 4
,, 23	14	15	16	25	S.B.B.	4	22	29·1	21	20·0	22	11·2	21	2·0	21	45·6	21 45·5
,, 27	11	40	14	0	V.V.N.	4	22	39·9	21	21·5	22	4·4	20	55·0	21	45·2	
,, 30	14	20	16	20	V.V.N.	3	22	3·5	21	9·4	22	17·2	21	33·0	21	45·8	
Nov. 3	11	21	13	51	S.B.B.	3	21	58·0	21	20·4	22	15·6	21	32·0	21	46·5	No. 3
,, 6	14	18	16	18	S.B.B.	4	22	46·2	21	12·5	22	4·6	20	50·2	21	43·4	21 46·6
,, 10	10	50	13	5	V.V.N.	4	22	50·4	21	3·7	22	0·5	20	52·0	21	41·6	
,, 13	14	10	16	30	V.V.N.	3	22	2·9	21	9·5	22	23·0	21	23·0	21	44·6	
,, 17	14	5	13	22	S.B.B.	3	22	7·0	21	18·9	22	14·5	21	30·1	21	47·6	21 45·4
,, 20	14	15	16	29	S.B.B.	4	22	29·4	21	20·0	22	11·9	21	2·2	21	45·9	No. 4
,, 24	11	0	13	16	S.B.B.	4	22	46·6	21	12·5	22	12·0	20	50·4	21	45·4	21 44·1
,, 27	14	10	16	15	V.V.N	3	21	57·2	21	16·2	22	21·7	21	36·5	21	47·9	
Dec. 1	10	30	12	52	S.B.B.	3	22	5·0	21	19·9	22	14·0	21	28·2	21	46·8	
,, 4	14	15	16	35	S.B.B.	4	22	49·1	21	12·7	22	4·9	20	51·0	21	44·4	No. 3
,, 8	10	55	13	15	V.V.N.	4	22	44·2	21	12·0	22	10·2	20	52·2	21	44·9	21 46·3
,, 11	14	45	17	0	V.V.N.	3	22	3·2	20	57·2	22	34·2	21	27·2	21	45·4	
,, 15	10	30	12	37	S.B.B.	3	22	6·2	21	20·2	22	13·1	21	24·5	21	46·0	21 45·8
,, 18	14	10	16	30	S.B.B.	4	22	48·0	21	11·9	22	6·7	20	50·6	21	44·3	
,, 22	10	20	12	30	V.V.N.	4	22	46·0	21	27·5	22	6·5	20	51·2	21	47·8	No. 4
,, 25	13	50	16	2	V.V.N.	3	22	3·5	21	3·4	22	34·5	21	24·2	21	46·4	21 45·3
,, 29	11	0	13	15	S.B.B.	3	22	23·4	21	14·0	22	8·7	21	21·0	21	46·8	

		° ′
The Mean Dip for the year ...	With Needle No. 3 =	21 44·0
	With Needle No. 4 =	21 43·1

The Mean Dip for the year 1903 = 21 43·6

Note :—The yearly means have been calculated from all available observations during the year and are not comparable.

Absolute Magnetical Observations.—Table I.

Observations of Vibration and Deflection, taken with the Kew Unifilar Magnetometer (No. 23, by Elliot Brothers), for the determination of Absolute Horizontal Force.

1904.

1904. Date.	Civil Time, Mean.	Magnet No. 23a. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 e by N. 23 a. at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0·8}$).	1·0 foot ($X_{1·0}$).	Difference. $X_{0·8}+X_{1·0}$.	Mean. $\frac{X_{0·8}-X_{1·0}}{2}$.	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc.div.	°	s.		°	° ′ ″	° ′ ″	°		°								
JANUARY 6	12 8	2·8610	1·72	85·0	+3·1	15·61	80·0	17 13 22	8 45 20	84·8	15·60	80·6	V.V.N.	·62816	8·1160	8·1158	+·0002	8·1159		
,, ,,	14 17	2·8624	1·70	85·8	,,	15·16	82·6	17 12 55	8 44 45	85·7	15·50	81·3	V.V.N.	·62777	8·1137	8·1161	−·0024	8·1149		
,, 13	12 24	2·8603	1·78	83·0	+0·4	15·80	80·5	17 13 12	8 45 11	83·6	15·68	80·9	S.B.B.	·62793	8·1178	8·1180	−·0002	8·1179		
,, ,,	15 11	2·8614	1·71	84·7	,,	15·41	82·2	17 13 32	8 45 21	83·9	15·48	81·9	S.B.B.	·62796	8·1147	8·1148	−·0001	8·1147	8·1178	3·7430
,, 20	11 32	2·8583	1·81	78·6	+0·4	16·84	76·3	17 13 40	8 45 19	79·8	16·74	78·6	V.V.N.	·62806	8·1212	8·1221	−·0009	8·1216		
,, ,,	14 46	2·8610	1·50	83·2	,,	15·94	81·0	17 13 45	8 45 27	82·7	16·35	79·7	V.V.N.	·62804	8·1150	8·1154	−·0004	8·1152		
,, 27	11 41	2·8611	1·30	83·5	+0·6	15·63	81·6	17 12 40	8 44 56	81·4	15·86	82·7	V.V.N.	·62777	8·1208	8·1210	−·0002	8·1209		
,, ,,	14 59	2·8610	1·47	84·3	,,	15·53	84·2	17 12 42	8 45 2	81·4	15·78	83·2	V.V.N.	·62770	8·1214	8·1208	+·0006	8·1211		
FEBRUARY 3	11 59	2·8603	1·30	82·1	+0·2	16·01	80·0	17 14 20	8 46 7	83·6	15·90	80·8	S.B.B.	·62842	8·1135	8·1109	+·0026	8·1122		
,, ,,	14 56	2·8616	1·39	84·3	,,	15·26	83·2	17 14 46	8 46 5	83·7	15·44	82·6	S.B.B.	·62836	8·1098	8·1092	+·0006	8·1095		
,, 10	13 40	2·8612	1·18	83·5	+0·2	15·38	82·9	17 13 15	8 45 30	84·8	15·26	83·6	V.V.N.	·62806	8·1154	8·1133	+·0021	8·1143		
,, ,,	15 19	2·8625	1·69	86·0	,,	15·10	84·8	17 13 0	8 45 20	85·2	15·15	84·0	V.V.N.	·62777	8·1133	8·1117	+·0016	8·1125	8·1138	3·7411
,, 17	12 46	2·8609	1·25	83·2	+0·2	15·95	81·7	17 14 47	8 46 10	81·5	15·87	82·2	S.B.B.	·62829	8·1132	8·1119	+·0013	8·1125		
,, ,,	14 38	2·8612	1·21	82·9	,,	15·37	83·0	17 15 12	8 46 14	81·7	15·61	82·7	S.B.B.	·62839	8·1102	8·1100	+·0002	8·1101		
,, 24	11 26	2·8594	1·51	79·1	+0·3	16·26	78·8	17 13 10	8 44 57	80·3	16·17	79·5	V.V.N.	·62764	8·1206	8·1227	−·0021	8·1216		
,, ,,	14 54	2·8611	1·42	82·8	,,	15·64	81·2	17 13 15	8 45 5	81·9	15·73	81·0	V.V.N.	·62770	8·1175	8·1186	−·0011	8·1180		
MARCH 2	12 23	2·8591	1·40	82·9	+0·2	16·07	82·9	17 13 57	8 45 45	83·0	15·91	83·3	S.B.B.	·62843	8·1193	8·1180	+·0013	8·1186		
,, ,,	14 3	2·8603	1·49	83·7	,,	15·45	83·9	17 14 2	8 45 50	83·9	15·71	83·7	S.B.B.	·62849	8·1154	8·1139	+·0015	8·1146		
,, 9	11 28	2·8594	1·58	80·5	,,	16·28	79·3	17 14 55	8 46 11	80·2	16·23	80·0	V.V.N.	·62836	8·1152	8·1143	+·0009	8·1147		
,, ,,	14 35	2·8610	1·52	82·1	,,	15·61	81·8	17 15 3	8 46 17	81·3	15·84	81·1	V.V.N.	·62826	8·1104	8·1092	+·0012	8·1098		
,, 16	13 9	2·8605	1·22	84·9	+0·6	16·10	83·8	17 12 55	8 45 15	86·0	15·78	84·3	S.B.B.	·62815	8·1186	8·1173	+·0013	8·1179	8·1162	3·7422
,, ,,	15 0	2·8622	1·29	85·6	,,	15·31	85·0	17 12 57	8 45 12	86·5	15·60	84·5	S.B.B.	·62806	8·1137	8·1128	+·0009	8·1132		
,, 23	12 30	2·8588	1·41	84·4	+0·8	16·35	84·1	17 13 12	8 45 17	84·3	16·07	84·4	V.V.N.	·62841	8·1234	8·1229	+·0005	8·1231		
,, ,,	14 30	2·8601	1·43	85·8	,,	15·52	85·0	17 13 5	8 45 17	84·7	15·89	84·7	V.V.N.	·62849	8·1208	8·1199	+·0009	8·1203		
,, 30	12 0	2·8624	1·50	91·9	+1·1	15·55	86·6	17 11 54	8 44 38	91·6	15·34	87·7	S.B.B.	·62832	8·1176	8·1171	+·0005	8·1173		
,, ,,	15 10	2·8632	1·51	91·1	,,	14·59	89·0	17 12 31	8 44 58	90·9	14·79	89·2	S.B.B.	·62838	8·1130	8·1122	+·0008	8·1126		

April	6	11	17	2·8612	1·11	86·1	+1·2	15·62	85·6	17	13	10	8	45	12	86·6	15·54	86·1	V.V.N.	·62828	8·1163	8·1163	·0000	8·1163		
,,	,,	15	4	2·8636	1·20	88·4	,,	14·51	87·6	17	13	35	8	45	35	87·8	14·81	87·1	V.V.N.	·62826	8·1087	8·1074	+·0013	8·1080		
,,	13	11	50	2·8613	1·21	86·8	+0·8	15·46	85·6	17	13	11	8	45	15	87·0	15·34	86·1	S.B.B.	·62832	8·1161	8·1158	+·0003	8·1159		
,,	,,	14	47	2·8631	1·26	88·6	,,	14·70	87·0	17	13	22	8	45	21	88·3	14·94	86·8	S.B.B.	·62829	8·1105	8·1102	+·0003	8·1103	8·1111	3·7398
,,	20	11	31	2·8623	1·50	85·9	+1·2	15·16	85·2	17	14	7	8	45	49	85·8	15·05	85·8	V.V.N.	·62823	8·1094	8·1083	+·0011	8·1088		
,,	,,	14	35	2·8630	1·51	87·0	,,	14·63	86·9	17	14	25	8	45	52	86·8	14·81	86·4	V.V.N.	·62835	8·1064	8·1061	+·0003	8·1062		
,,	27	12	9	2·8617	1·10	86·6	+1·1	15·15	86·8	17	13	28	8	45	30	86·7	14·93	87·3	S.B.B.	·62828	8·1143	8·1132	+·0011	8·1137		
,,	,,	15	5	2·8628	1·19	87·6	,,	14·50	87·6	17	13	47	8	45	36	87·0	14·60	87·5	S.B.B.	·62830	8·1104	8·1096	+·0008	8·1100		
May	4	11	48	2·8612	1·23	88·0	+1·6	15·10	87·7	17	12	5	8	44	52	88·2	15·07	88·0	V.V.N.	·62825	8·1206	8·1190	+·0016	8·1198		
,,	,,	14	52	2·8633	1·07	89·2	,,	14·43	89·2	17	12	23	8	44	58	89·5	14·62	89·0	V.V.N.	·62813	8·1135	8·1124	+·0011	8·1129		
,,	11	11	45	2·8628	1·09	88·7	+1·2	15·10	87·7	17	12	35	8	45	0	88·3	15·01	88·1	S.B.B.	·62806	8·1148	8·1141	+·0007	8·1144		
,,	,,	14	53	2·8626	1·11	88·1	,,	14·46	89·4	17	12	50	8	45	6	88·5	14·65	89·0	S.B.B.	·62823	8·1139	8·1133	+·0006	8·1136	8·1148	3·7416
,,	18	11	51	2·8611	1·27	88·9	+1·6	15·10	88·2	17	12	14	8	44	51	89·6	14·96	88·9	V.V.N.	·62842	8·1197	8·1190	+·0007	8·1193		
,,	,,	13	27	2·8624	1·36	89·6	,,	14·75	89·5	17	12	2	8	44	44	90·7	14·86	89·0	V.V.N.	·62822	8·1161	8·1154	+·0007	8·1157		
,,	25	11	28	2·8631	1·18	89·7	+1·1	14·65	88·6	17	12	55	8	45	12	89·1	14·53	89·1	S.B.B.	·62820	8·1126	8·1117	+·0009	8·1121		
,,	,,	14	47	2·8634	1·23	89·8	,,	14·06	90·2	17	13	2	8	45	15	89·5	14·23	89·8	S.B.B.	·62828	8·1111	8·1102	+·0009	8·1106		
June	1	11	48	2·8636	1·25	90·2	+1·7	14·69	88·8	17	13	0	8	45	5	88·9	14·54	89·1	V.V.N.	·62806	8·1115	8·1119	−·0004	8·1117		
,,	,,	14	58	2·8650	1·43	90·9	,,	14·15	90·1	17	13	6	8	45	20	89·2	14·27	90·0	V.V.N.	·62799	8·1072	8·1059	+·0013	8·1065		
,,	8	11	45	2·8620	1·08	87·0	+0·9	14·68	87·5	17	13	35	8	45	22	86·3	14·70	87·3	S.B.B.	·62825	8·1137	8·1139	−·0002	8·1138		
,,	,,	14	41	2·8612	1·13	84·5	,,	14·64	86·2	17	13	45	8	45	26	86·9	14·78	86·4	S.B.B.	·62843	8·1124	8·1130	−·0006	8·1127		
,,	15	12	33	2·8593	0·75	84·1	+0·1	15·82	82·7	17	13	7	8	45	15	85·8	15·69	82·8	V.V.N.	·62849	8·1216	8·1210	+·0006	8·1213	8·1136	3·7410
,,	,,	14	14	2·8613	0·86	83·9	,,	15·27	83·3	17	13	17	8	45	19	84·5	15·61	83·1	V.V.N.	·62819	8·1160	8·1156	+·0004	8·1158		
,,	22	11	49	2·8615	0·74	88·2	+0·3	15·47	85·7	17	13	7	8	45	16	88·1	15·20	85·8	S.B.B.	·62838	8·1169	8·1161	+·0008	8·1165		
,,	,,	15	5	2·8624	0·77	87·0	,,	14·41	86·4	17	13	30	8	45	30	88·0	14·69	86·0	S.B.B.	·62846	8·1119	8·1107	+·0012	8·1113		
,,	29	11	43	2·8626	0·39	88·1	,,	15·10	86·5	17	12	47	8	45	7	88·0	14·90	87·0	V.V.N.	·62815	8·1156	8·1148	+·0008	8·1152		
,,	,,	15	1	2·8643	0·43	89·0	,,	14·32	87·7	17	12	45	8	45	7	87·4	14·55	87·5	V.V.N.	·62794	8·1120	8·1111	+·0009	8·1115		
July	6	11	1	2·8615	0·46	85·3	+0·6	15·76	83·3	17	13	32	8	45	32	83·0	15·87	83·1	S.B.B.	·62819	8·1180	8·1169	+·0011	8·1174		
,,	,,	14	17	2·8618	0·44	84·2	,,	15·45	82·4	17	13	20	8	45	25	82·7	15·97	82·0	S.B.B.	·62813	8·1171	8·1161	+·0010	8·1166		
,,	13	11	19	2·8617	0·50	87·9	+0·2	15·28	85·1	17	12	35	8	45	0	86·4	15·42	85·1	V.V.N.	·62828	8·1199	8·1191	+·0008	8·1195		
,,	,,	14	29	2·8622	0·43	87·7	,,	15·01	85·6	17	12	36	8	45	0	87·6	15·18	85·6	V.V.N.	·62826	8·1173	8·1165	+·0008	8·1169	8·1168	3·7425
,,	20	11	11	2·8608	0·45	87·9	+0·6	15·85	84·8	17	12	3	8	44	48	86·8	15·85	85·0	S.B.B.	·62835	8·1233	8·1231	+·0002	8·1232		
,,	,,	13	52	2·8607	0·41	85·8	,,	15·55	85·0	17	12	14	8	44	46	86·7	15·72	85·0	S.B.B.	·62829	8·1221	8·1219	+·0002	8·1220		
,,	27	11	56	2·8624	0·31	85·6	,,	14·91	84·8	17	14	10	8	45	42	85·7	14·84	85·0	V.V.N.	·62829	8·1109	8·1109	·0000	8·1109		
,,	,,	15	7	2·8642	0·40	86·7	,,	14·38	85·8	17	13	37	8	45	32	86·4	14·61	85·7	V.V.N.	·62801	8·1081	8·1074	+·0007	8·1077		
August	3	11	46	2·8616	0·42	85·9	+0·3	15·30	83·6	17	13	28	8	45	30	85·7	15·27	84·0	S.B.B.	·62835	8·1160	8·1147	+·0013	8·1153		
,,	,,	14	9	2·8619	0·39	84·7	,,	15·06	84·8	17	12	47	8	45	12	87·6	15·31	84·4	S.B.B.	·62823	8·1150	8·1135	+·0015	8·1142		
,,	10	11	31	2·8611	0·38	86·0	+0·2	15·77	82·9	17	13	10	8	45	20	85·3	15·67	83·2	V.V.N.	·62830	8·1190	8·1180	+·0010	8·1185		
,,	,,	14	49	2·8630	0·40	86·0	,,	15·06	83·9	17	13	2	8	45	12	87·1	15·26	83·7	V.V.N.	·62807	8·1124	8·1119	+·0005	8·1121		
,,	17	12	14	2·8626	0·49	86·7	+0·7	15·18	84·1	17	12	47	8	45	7	84·8	15·13	84·3	S.B.B.	·62788	8·1173	8·1163	+·0010	8·1168	8·1131	3·7408
,,	,,	14	55	2·8631	0·48	86·4	,,	14·73	85·0	17	13	18	8	45	22	85·2	14·90	84·7	S.B.B.	·62799	8·1132	8·1122	+·0010	8·1127		
,,	24	11	48	2·8627	0·35	86·0	+0·6	15·00	84·7	17	14	50	8	46	2	85·0	14·93	84·9	V.V.N.	·62839	8·1085	8·1085	·0000	8·1085		
,,	,,	14	48	2·8619	0·39	83·9	,,	14·77	85·7	17	13	55	8	45	52	85·7	14·81	85·9	V.V.N.	·62835	8·1119	8·1094	+·0025	8·1106		
,,	31	12	11	2·8619	0·39	84·8	,,	15·00	84·0	17	14	2	8	45	48	84·8	15·07	84·3	S.B.B.	·62838	8·1130	8·1117	+·0013	8·1123		
,,	,,	14	53	2·8628	0·43	86·2	,,	14·65	85·1	17	14	7	8	45	54	85·0	14·79	84·9	S.B.B.	·62830	8·1109	8·1092	+·0017	8·1160		
Sept.	7	11	14	2·8618	0·41	85·1	+0·4	15·19	84·0	17	13	3	8	45	20	85·7	15·31	84·0	V.V.N.	·62819	8·1163	8·1148	+·0015	8·1155		
,,	,,	14	36	2·8627	0·40	87·0	,,	14·91	85·0	17	13	0	8	45	20	87·3	15·06	84·9	V.V.N.	·62823	8·1141	8·1124	+·0017	8·1132		
,,	14	12	0	2·8606	0·46	81·9	−0·3	15·63	81·3	17	13	25	8	45	15	82·0	15·66	81·4	S.B.B.	·62794	8·1188	8·1193	−·0005	8·1190		
,,	,,	13	35	2·8607	0·50	81·4	,,	15·48	81·5	17	13	47	8	45	26	81·4	15·62	81·5	S.B.B.	·62800	8·1173	8·1178	−·0005	8·1175		
,,	21	11	22	2·8616	0·49	86·5	+0·6	15·46	84·8	17	13	4	8	45	17	85·3	15·37	85·0	V.V.N.	·62817	8·1182	8·1171	+·0011	8·1176	8·1144	3·7414
,,	,,	14	57	2·8642	0·35	88·1	,,	14·90	85·8	17	13	12	8	45	17	86·6	15·05	85·7	V.V.N.	·62796	8·1109	8·1104	+·0005	8·1106		
,,	28	11	50	2·8627	0·38	87·4	+0·1	14·88	86·3	17	13	15	8	45	30	86·8	14·70	86·7	S.B.B.	·62817	8·1139	8·1119	+·0020	8·1129		
,,	,,	14	53	2·8637	0·42	88·6	,,	14·22	87·2	17	13	36	8	45	39	87·6	14·35	87·2	S.B.B.	·62832	8·1100	8·1081	+·0019	8·1090		

1904. Date.	Civil Time, Mean.	Magnet No. 23a. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 c by N. 23 a. at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot. ($X_{0·8}$).	1·0 foot ($X_{1·0}$).	Difference. $X_{0·8}-X_{1·0}$.	Mean. $\frac{X_{0·8}+X_{1·0}}{2}$.	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc.div.	°	s.		°	° ′ ″	° ′ ″	°		°								
October 5	11 29	2·8639	0·43	88·8	−0·3	14·86	87·0	17 12 48	8 44 53	89·4	14·80	87·4	V.V.N.	0·62799	8·1109	8·1120	−·0011	8·1114	8·1112	3·7399
„ „	15 0	2·8651	0·43	89·9	„	14·23	89·0	17 13 6	8 45 23	89·5	14·35	88·5	V.V.N.	0·62803	8·1074	8·1057	+·0017	8·1065		
„ 12	11 49	2·8639	0·50	88·5	−0·8	15·19	85·3	17 13 9	8 45 22	86·3	15·04	85·7	S.B.B.	0·62788	8·1120	8·1105	+·0015	8·1112		
„ „	14 34	2·8629	0·39	85·9	„	14·46	86·0	17 13 26	8 45 31	87·3	14·70	86·0	S.B.B.	0·62826	8·1107	8·1092	+·0015	8·1099		
„ 19	12 36	2·8635	0·42	90·2	0·0	14·99	87·2	17 12 42	8 44 54	89·7	14·70	88·1	V.V.N.	0·62812	8·1133	8·1139	−·0006	8·1136		
„ „	14 38	2·8642	0·49	90·0	„	14·38	88·8	17 12 59	8 45 7	89·7	14·59	88·5	V.V.N.	0·62820	8·1102	8·1102	·0000	8·1102		
„ 26	11 38	2·8626	0·38	89·5	0·0	15·44	86·1	17 12 59	8 45 2	88·2	15·20	86·8	S.B.B.	0·62826	8·1160	8·1165	−·0005	8·1162		
„ „	14 42	2·8635	0·46	88·0	„	14·38	88·0	17 13 10	8 45 7	88·7	14·58	87·7	S.B.B.	0·62816	8·1105	8·1113	−·0008	8·1109		
Novem. 2	12 9	2·8642	0·37	89·5	+0·1	15·00	86·9	17 13 32	8 45 30	87·9	14·71	87·8	V.V.N.	0·62812	8·1094	8·1085	+·0009	8·1089	8·1092	3·7390
„ „	15 39	2·8639	0·40	88·5	„	14·19	87·9	17 13 21	8 45 32	88·3	14·41	88·0	V.V.N.	0·62828	8·1096	8·1077	+·0019	8·1086		
„ 9	11 43	2·8614	0·47	85·2	−0·1	15·75	82·6	17 13 7	8 45 25	87·6	15·54	83·3	V.V.N.	0·62833	8·1152	8·1133	+·0019	8·1142		
„ „	13 24	2·8630	0·48	85·0	„	15·14	84·7	17 13 57	8 45 34	86·5	15·40	83·7	V.V.N.	0·62816	8·1085	8·1087	−·0002	8·1086		
„ 16	11 31	2·8639	0·40	87·6	+0·3	14·90	83·5	17 14 51	8 46 2	89·1	14·31	85·1	V.V.N.	0·62836	8·1025	8·1025	·0000	8·1025		
„ „	14 54	2·8669	0·38	91·8	„	14·17	87·1	17 13 57	8 45 50	92·3	13·88	86·6	V.V.N.	0·62804	8·0984	8·0965	+·0019	8·0974		
„ 23	11 44	2·8609	0·48	82·0	−0·3	15·95	81·6	17 14 20	8 45 47	84·3	15·81	82·1	S.B.B.	0·62830	8·1126	8·1124	+·0002	8·1125		
„ „	15 14	2·8620	0·42	82·3	„	15·12	83·9	17 15 5	8 46 11	84·4	15·29	83·6	S.B.B.	0·62821	8·1066	8·1064	+·0002	8·1065		
„ 30	12 18	2·8611	0·47	86·9	−0·2	16·18	81·9	17 13 24	8 45 15	85·1	15·99	82·6	V.V.N.	0·62833	8·1190	8·1195	−·0005	8·1192		
„ „	15 23	2·8621	0·48	86·5	„	15·36	84·5	17 13 16	8 45 26	87·2	15·56	84·2	V.V.N.	0·62839	8·1143	8·1130	+·0013	8·1136		
Decem. 7	11 49	2·8614	0·41	85·6	−0·3	16·17	81·2	17 14 2	8 45 41	84·9	15·98	81·7	S.B.B.	0·62838	8·1148	8·1143	+·0005	8·1145	8·1120	3·7403
„ „	14 6	2·8630	0·40	83·7	„	15·25	83·5	17 14 15	8 45 47	84·9	15·62	82·5	S.B.B.	0·62813	8·1077	8·1074	+·0003	8·1075		
„ 14	11 30	2·8599	0·47	81·7	+0·3	16·09	81·6	17 12 6	8 44 36	84·0	16·00	82·1	V.V.N.	0·62781	8·1238	8·1244	−·0006	8·1241		
„ „	14 56	2·8621	0·48	83·5	„	15·50	82·4	17 12 22	8 44 55	84·5	15·64	82·6	V.V.N.	0·62773	8·1178	8·1169	+·0009	8·1173		
„ 21	12 29	2·8621	0·43	82·7	−0·1	15·57	82·1	17 14 49	8 46 15	82·7	15·30	82·8	V.V.N.	0·62813	8·1094	8·1077	+·0017	8·1085		
„ „	15 19	2·8637	0·40	85·5	„	14·74	83·5	17 15 6	8 46 22	83·3	14·93	83·3	V.V.N.	0·62825	8·1057	8·1040	+·0017	8·1048		
„ 28	11 14	2·8612	0·53	83·8	+0·3	16·24	79·3	17 13 44	8 45 36	84·3	16·25	79·9	V.V.N.	0·62828	8·1152	8·1143	+·0009	8·1147		
„ „	15 12	2·8634	0·50	83·5	„	15·39	82·9	17 14 52	8 46 5	84·3	15·57	82·1	V.V.N.	0·62807	8·1048	8·1044	+·0004	8·1046		
																			The mean value of the Horizontal Force for the year 1904 =	8·1137	3·7411

Absolute Magnetical Observations.—Table II.

Observations of Absolute Declination.

1904.

1904. Date.	Bombay Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Tardeo Chimney.	Torsion. Mean.	Effect of 90°	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″
JAN. 7	11 25	+1·56	+1·11	16 45 10	196 54 40	0		V.V.N.	18·98	0 17 33		
,, 14	11 40	+1·56	+1·31	16 46 10	196 55 50	0		S.B.B.	18·85	0 17 3	18·81	0 16 28
,, 21	10 42	+1·52	+1·44	16 46 30	196 58 10	0		V.V.N.	18·65	0 15 52		
,, 28	10 42	+1·55	+1·42	16 47 0	196 58 10	0		V.V.N.	18·75	0 15 24		
FEB. 4	11 49	+1·54	+1·29	16 46 35	196 57 10	0		S.B.B.	18·70	0 16 8		
,, 11	11 50	+1·54	+1·26	16 48 10	196 58 10	0		V.V.N.	18·81	0 16 45	18·74	0 15 47
,, 18	11 37	+1·54	+1·24	16 46 40	196 58 30	0		S.B.B.	18·69	0 14 57		
,, 25	11 16	+1·52	+1·31	16 46 50	196 58 10	0		V.V.N.	18·78	0 15 20		
MAR. 3	11 54	+1·52	+1·25	16 46 0	196 57 40	0		S.B.B.	18·70	0 15 4		
,, 10	11 40	+1·54	+1·16	16 47 50	196 57 40	0		V.V.N.	18·81	0 17 2		
,, 17	11 49	+1·55	+1·24	16 47 10	196 58 0	0		S.B.B.	18·79	0 15 57	18·72	0 15 49
,, 24	10 57	+1·52	+1·35	16 46 50	196 57 5	0		V.V.N.	18·79	0 16 22		
,, 31	11 56	+1·54	+1·31	16 45 0	196 57 0	0		S.B.B.	18·51	0 14 41		
APR. 7	11 4	+1·50	+1·36	16 45 50	196 57 27	0		V.V.N.	18·72	0 14 59		
,, 14	11 44	+1·54	+1·24	16 45 0	196 57 30	0		S.B.B.	18·51	0 14 17	18·60	0 14 33
,, 21	11 29	+1·51	+1·30	16 46 10	196 57 15	0		V.V.N.	18·70	0 15 35		
,, 28	11 49	+1·54	+1·30	16 44 20	196 57 40	0		S.B.B.	18·49	0 13 23		
MAY 5	11 22	+1·51	+1·29	16 45 20	196 57 10	0		V.V.N.	18·64	0 14 51		
,, 12	12 19	+1·55	+1·22	16 44 20	196 57 0	0		S.B.B.	18·59	0 14 8	18·67	0 14 44
,, 19	11 31	+1·55	+1·10	16 45 0	196 57 42	0		V.V.N.	18·65	0 14 14		
,, 26	11 25	+1·56	+1·21	16 45 55	196 57 0	0		S.B.B.	18·79	0 15 44		
JUNE 2	11 18	+1·55	+1·25	16 45 30	196 56 55	0		V.V.N.	18·69	0 15 22		
,, 9	12 8	+1·55	+1·21	16 43 50	196 57 20	0		S.B.B.	18·50	0 13 19		
,, 16	11 19	+1·56	+1·29	16 44 50	196 57 50	0		V.V.N.	18·58	0 13 44	18·63	0 14 31
,, 23	11 33	+1·56	+1·36	16 45 55	196 58 0	0		S.B.B.	18·64	0 14 35		
,, 30	11 28	+1·51	+1·15	16 46 40	196 57 55	0		V.V.N.	18·73	0 15 36		
JULY 7	11 20	+1·54	+1·21	16 45 40	196 58 0	0		S.B.B.	18·60	0 14 28		
,, 14	11 0	+1·55	+1·36	16 46 25	196 57 30	0		V.V.N.	18·70	0 15 33	18·62	0 14 42
,, 21	11 3	+1·55	+1·21	16 45 50	196 57 50	0		S.B.B.	18·60	0 14 49		
,, 28	11 58	+1·55	+1·37	16 45 50	196 58 30	0		V.V.N.	18·57	0 13 58		
AUG. 4	12 3	+1·57	+1·29	16 43 30	196 58 0	0		S.B.B.	18·35	0 12 15		
,, 11	12 1	+1·51	+1·32	16 44 20	196 57 30	0		V.V.N.	18·47	0 13 28	18·41	0 12 43
,, 18	12 7	+1·56	+1·36	16 44 20	196 57 40	0		S.B.B.	18·50	0 13 20		
,, 26	11 50	+1·50	+1·29	16 43 10	196 58 0	0		V.V.N.	18·33	0 11 50		
SEPT. 1	11 37	+1·54	+1·29	16 44 40	196 58 0	0		S.B.B.	18·50	0 13 23		
,, 8	11 51	+1·59	+1·16	16 41 50	196 57 50	0		V.V.N.	18·29	0 10 55		
,, 15	10 22	+1·51	+1·41	16 44 50	196 57 50	0		V.V.N.	18·51	0 13 33	18·43	0 12 38
,, 22	11 45	+1·51	+1·40	16 44 50	196 58 10	0		V.V.N.	18·46	0 13 13		
,, 29	12 0	+1·56	+1·34	16 43 45	196 58 20	0		S.B.B.	18·38	0 12 6		
OCT. 6	11 50	+1·55	+1·10	16 43 30	196 57 42	0		V.V.N.	18·45	0 12 44		
,, 13	12 3	+1·55	+1·29	16 44 0	196 58 0	0		S.B.B.	18·40	0 12 44	18·49	0 13 15
,, 20	11 49	+1·54	+1·13	16 41 10	196 55 37	0		V.V.N.	18·39	0 12 27		
,, 27	11 48	+1·52	+1·10	16 44 10	196 56 0	0		V.V.N.	18·74	0 15 5		
NOV. 3	12 7	+1·55	+1·06	16 42 10	196 55 30	0		V.V.N.	18·64	0 13 39		
,, 10	11 34	+1·56	+1·24	16 43 20	196 55 20	0		S.B.B.	18·68	0 14 48	18·64	0 14 21
,, 17	11 54	+1·57	+1·02	16 42 30	196 54 50	0		V.V.N.	18·68	0 14 43		
,, 24	12 17	+1·56	+1·30	16 43 0	196 55 30	0		S.B.B.	18·57	0 14 14		
DEC. 1	10 33	+1·52	+1·17	16 42 50	196 55 30	0		V.V.N.	18·51	0 14 9		
,, 8	11 27	+1·56	+1·21	16 44 10	196 57 0	0		S.B.B.	18·55	0 13 59		
,, 15	12 23	+1·56	+1·20	16 44 30	196 56 40	0		V.V.N.	18·58	0 14 41	18·52	0 14 2
,, 22	11 34	+1·55	+1·29	16 43 25	196 56 50	0		S.B.B.	18·45	0 13 19		
,, 29	11 57	+1·50	+1·05	16 43 15	196 56 10	0		V.V.N.	18·52	0 14 1		

The Mean Declination for the year 1904 = 0 14 28

Absolute Magnetical Observations.—Table III.

OBSERVATIONS OF INCLINATION, 1904.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and two $3\frac{1}{2}$ inch Needles, Nos. 1 and 2, by Lieut. Charlton.

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 1	13 40	15 5	S.B.B.	2	22 51·9	21 51·2	21 40·9	20 54·5	21 49·6		
,, 5	10 45	11 50	V.V.N.	2	22 44·1	21 46·9	21 44·5	20 48·1	21 45·9	No. 2 ° ′	
,, 8	14 25	15 40	V.V.N.	1	22 57·0	22 20·0	21 19·5	20 33·0	21 47·4	21 47·9	
,, 12	12 5	13 20	S.B.B.	1	23 11·2	22 8·4	21 18·7	20 32·1	21 47·6		
,, 15	14 57	16 4	S.B.B.	2	22 45·6	21 50·1	21 45·7	20 45·9	21 46·8		21 48·1
,, 19	11 0	12 0	V.V.N.	2	22 45·0	21 46·6	21 53·7	20 45·5	21 47·7	No. 1 ° ′	
,, 22	14 25	15 28	V.V.N.	1	23 3·7	22 20·0	21 20·5	20 43·7	21 51·9	21 48·3	
,, 26	11 40	12 40	V.V.N.	1	23 4·2	22 18·7	21 16·0	20 26·2	21 46·3		
,, 29	14 50	15 45	V.V.N.	2	22 52·7	21 49·7	21 50·9	20 45·0	21 49·6		
FEB. 2	11 30	12 35	S.B.B.	2	22 44·0	21 46·7	21 56·9	20 46·0	21 48·4		
,, 5	14 52	15 55	S.B.B.	1	23 1·9	22 19·6	21 17·4	20 46·5	21 51·3	No. 2 ° ′	
,, 9	12 40	13 45	V.N.N.	1	23 6·7	22 13·5	21 23·2	20 31·0	21 48·6	21 48·2	
,, 12	14 30	15 30	V.N.N.	2	22 55·2	21 43·0	21 50·2	20 49·7	21 49·5		
,, 16	10 45	11 40	V.N.N.	2	22 49·2	21 48·2	21 43·2	20 49·1	21 47·4		21 48·7
,, 19	14 56	15 57	S.B.B.	1	23 5·1	22 16·4	21 22·7	20 33·5	21 49·4	No. 1 ° ′	
,, 23	10 55	11 52	V.V.N.	1	23 5·0	22 10·7	21 23·5	20 31·6	21 47·7	21 49·2	
,, 26	14 40	15 45	V.V.N	2	22 45·5	21 45·0	21 51·2	20 48·2	21 47·5		
MAR. 1	12 0	13 7	S.B.B.	2	22 47·0	21 44·0	21 48·1	20 53·1	21 48·0		
,, 4	14 40	15 42	S.B.B.	1	23 4·0	22 12·0	21 30·5	20 24·7	21 47·8	No. 2 ° ′	
,, 8	11 3	11 53	V.N.N.	1	23 13·5	22 12·2	21 26·2	20 23·5	21 48·8	21 48·1	
,, 11	14 50	16 10	V.N.N.	2	22 44·0	21 51·0	21 52·2	20 50·7	21 49·5		
,, 15	12 40	13 50	S.B.B.	2	22 48·0	21 49·5	21 51·7	20 43·7	21 48·2		21 48·0
,, 18	14 43	15 46	S.B.B.	1	23 10·2	22 9·9	21 28·4	20 26·0	21 48·6	No. 1 ° ′	
,, 22	11 17	12 18	V.N.N.	1	23 11·0	22 13·0	21 22·7	20 18·7	21 46·3	21 47·9	
,, 24	14 50	15 56	V.N.N.	2	22 54·0	21 40·9	21 49·7	20 47·6	21 48·0		
,, 29	11 55	12 52	S.B.B.	2	22 50·6	21 33·5	21 48·7	20 54·6	21 46·8		
APR. 2	12 56	14 1	S.B.B.	1	23 12·7	22 16·2	21 24·7	20 20·1	21 48·4		
,, 5	11 20	12 15	V.N.N	1	23 3·1	22 15·7	21 21·7	20 20·7	21 45·3	No. 2 ° ′	
,, 8	14 20	15 23	V.N.N.	2	22 50·0	21 47·5	21 54·5	20 48·5	21 50·1	21 48·1	
,, 12	11 53	13 0	S.B.B.	2	22 51·7	21 36·7	21 49·1	20 55·7	21 48·3		
,, 15	14 41	15 45	S.B.B.	1	23 6·0	22 14·4	21 22·0	20 24·5	21 46·7		21 47·3
,, 19	10 50	11 55	V.N.N.	1	23 12·5	22 3·9	21 22·7	20 30·2	21 47·3		
,, 22	14 28	15 32	V.N.N.	2	22 51·5	21 33·2	22 0·2	20 50·6	21 48·9	No. 1 ° ′	
,, 26	12 1	13 12	S.B.B.	2	22 41·2	21 33·9	21 55·7	20 49·5	21 45·1	21 46·7	
,, 29	14 32	15 37	S.B.B.	1	23 3·0	22 10·7	21 29·7	20 19·2	21 45·6		

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 3	10 50	11 45	V.V.N.	1	23 13·7	22 8·2	21 21·2	20 18·2	21 45·3		
„ 6	14 45	15 50	V.V.N.	2	22 52·0	21 39·7	22 2·5	20 49·2	21 50·8	No. 2	
„ 10	12 2	13 8	S.B.B.	2	22 42·9	21 40·4	21 59·5	20 46·6	21 47·3	° ′	
„ 13	14 32	15 35	S.B.B.	1	23 15·2	22 6·6	21 30·7	20 21·9	21 48·6	21 49·0	
„ 17	10 45	11 55	V.V.N.	1	23 8·2	22 3·9	21 24·4	20 19·7	21 44·0		21 47·5
„ 20	14 40	15 47	V.V.N.	2	22 54·2	21 43·0	22 1·2	20 47·5	21 51·5	No. 1	
„ 24	11 35	12 30	S.B.B.	2	22 47·5	21 42·4	21 52·5	20 43·1	21 46·4	° ′	
„ 27	14 41	15 44	S.B.B.	1	23 11·7	22 2·7	21 32·2	20 20·7	21 46·8	21 46·3	
„ 31	10 47	11 40	V.V.N.	1	23 17·0	22 4·2	21 30·4	20 15·2	21 46·7		
JUNE 3	14 42	15 40	V.V.N.	2	22 53·2	21 33·7	21 56·2	20 43·2	21 46·6		
„ 7	11 52	12 50	S.B.B.	2	22 35·5	21 45·4	22 11·2	20 39·4	21 47·9	No. 2	
„ 10	14 50	15 45	S.B.B.	1	23 9·5	22 5·6	21 30·1	20 16·5	21 45·4	° ′	
„ 14	10 50	11 52	V.V.N.	1	23 12·0	22 1·5	21 31·7	20 18·7	21 46·0	21 49·5	
„ 17	14 36	15 45	V.V.N.	2	22 58·7	21 41·7	22 7·2	20 48·0	21 53·9		21 48·2
„ 21	11 52	12 55	S.B.B.	2	22 54·4	21 40·4	22 4·2	20 40·4	21 49·8	No. 1	
„ 24	14 48	15 51	S.B.B.	1	23 8·7	22 13·1	21 29·2	20 26·9	21 49·5	° ′	
„ 28	10 3	11 1	V.V.N.	1	23 17·2	22 5·2	21 29·0	20 14·7	21 46·5	21 46·8	
JULY 1	14 45	15 49	V.V.N.	2	22 55·7	21 40·9	21 58·5	20 42·2	21 49·3		
„ 5	11 6	12 3	S.B.B.	2	22 58·6	21 38·2	21 55·5	20 36·5	21 47·2	No. 2	
„ 8	14 20	15 17	S.B.B.	1	23 12·7	22 14·4	21 35·5	20 19·0	21 50·4	° ′	
„ 12	10 53	11 53	V.V.N.	1	23 14·0	22 7·0	21 27·0	20 26·2	21 48·5	21 49·3	
„ 15	14 37	15 30	V.V.N.	2	22 48·0	21 49·5	21 56·5	20 51·0	21 51·2		21 49·0
„ 19	10 59	11 51	S.B.B.	2	22 44·7	21 37·1	22 11·9	20 34·2	21 47·0	No. 1	
„ 22	13 50	14 47	S.B.B.	1	23 9·2	22 8·7	21 34·5	20 22·9	21 48·8	° ′	
„ 26	11 13	12 10	V.V.N.	1	23 4·0	22 13·5	21 29·5	20 21·7	21 47·2	21 48·7	
„ 29	14 52	15 46	V.V.N.	2	22 49·2	21 46·0	21 58·2	20 53·2	21 51·6		
AUG. 2	11 47	12 39	S.B.B.	2	22 44·0	21 40·1	22 3·2	20 49·7	21 49·2		
„ 5	14 45	15 48	S.B.B.	1	23 17·2	22 8·7	21 39·4	20 18·0	21 50·8	No. 2	
„ 9	11 10	12 5	V.V.N.	1	23 6·0	22 12·2	21 24·7	20 23·5	21 46·6	° ′	
„ 12	14 37	15 32	V.V.N.	2	22 40·7	21 49·5	21 48·0	20 57·0	21 48·8	21 48·6	
„ 16	11 38	12 40	S.B.B.	2	22 46·6	21 37·1	22 9·7	20 36·9	21 47·6		21 48·5
„ 19	13 46	14 46	S.B.B.	1	23 15·7	22 10·5	21 38·5	20 17·4	21 50·5	No. 1	
„ 23	10 56	11 55	V.V.N.	1	23 10·6	22 7·7	21 24·5	20 20·2	21 45·8	° ′	
„ 26	14 43	15 45	V.V.N.	2	22 48·5	21 50·7	21 58·7	20 47·2	21 51·3	21 48·4	
„ 30	11 30	12 37	S.B.B.	2	22 42·5	21 39·2	22 9·2	20 34·4	21 46·3		

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
SEPT. 2	14 21	15 18	S.B.B.	1	23 9·5	22 11·0	21 25·7	20 25·0	21 47·8		
,, 6	10 55	11 46	V.V.N.	1	23 3·5	22 9·5	21 25·2	20 24·7	21 45·7	No. 2	
,, 9	14 50	15 48	V.V.N.	2	22 51·5	21 46·5	22 0·5	20 48·5	21 51·7	° ′	
,, 13	12 25	13 22	S.B.B.	2	22 45·0	21 39·0	22 11·9	20 37·1	21 48·2	21 49·6	
,, 16	14 20	15 17	S.B.B.	1	23 11·2	22 10·1	21 23·7	20 28·6	21 48·4		21 48·8
,, 20	10 57	11 55	V.V.N.	1	23 12·0	22 8·2	21 29·7	20 22·5	21 48·1	No. 1	
,, 23	14 50	16 3	V.V.N.	2	22 38·5	21 44·7	21 55·5	21 5·5	21 51·0	° ′	
,, 27	11 39	12 47	S.B.B.	2	22 43·5	21 40·5	22 10·2	20 35·4	21 47·4	21 48·1	
,, 30	14 37	15 37	S.B.B.	1	23 11·7	22 14·0	21 37·0	20 19·9	21 50·6		
OCT. 4	10 37	11 37	V.V.N.	1	23 13·5	22 6·0	21 33·0	20 26·2	21 49·7		
,, 7	14 45	15 45	V.V.N.	2	22 48·1	21 40·6	22 2·5	20 57·5	21 52·2	No. 2	
,, 11	11 37	12 39	S.B.B.	2	22 41·1	21 41·5	22 8·2	20 34·7	21 46·4	° ′	
,, 14	14 47	15 48	S.B.B.	1	23 7·2	22 16·7	21 35·0	20 20·9	21 49·9	21 50·0	
,, 17	11 0	12 7	V.V.N.	1	23 18·0	22 11·5	21 23·0	20 23·2	21 48·9		21 49·9
,, 21	14 40	15 43	V.V.N.	2	22 48·5	21 44·5	22 3·5	20 55·2	21 52·9	No. 1	
,, 25	11 30	12 33	S.B.B.	2	22 44·9	21 41·7	22 11·4	20 36·1	21 48·5	° ′	
,, 28	14 32	15 42	S.B.B.	1	23 15·2	22 10·7	21 37·0	20 20·5	21 50·8	21 49·8	
NOV. 1	10 50	11 55	V.V.N.	1	23 14·2	21 59·0	21 37·7	20 25·5	21 49·1		
,, 4	14 45	15 40	V.V.N.	2	22 56·5	21 37·2	22 8·6	20 53·5	21 54·0	No. 2	
,, 8	10 48	11 55	S.B.B.	2	22 52·7	21 36·5	22 5·4	20 55·2	21 52·4	°	
,, 11	12 7	13 10	S.B.B.	1	23 14·2	21 59·2	21 40·0	20 26·4	21 49·9	21 52·8	
,, 16	8 45	9 20	S.B.B.	1	22 43·9	22 12·9	21 24·9	20 53·2	21 48·7		
,, ,,	16 0	16 45	V.V.N.	1	22 54·4	22 19·4	21 26·6	20 57·1	21 54·4		21 51·7
,, 18	14 40	15 50	V.V.N.	2	22 54·2	21 46·7	22 1·6	20 46·7	21 52·3	No. 1	
,, 22	11 38	12 41	S.B.B.	2	22 51·7	21 35·6	22 8·7	20 54·9	21 52·7	° ′	
,, 25	14 37	15 42	S.B.B.	1	23 17·5	21 59·1	21 41·0	20 29·7	21 51·8	21 50·9	
,, 29	12 55	13 53	V.V.N.	1	23 14·0	22 4·5	21 41·0	20 26·0	21 51·4		
DEC. 2	14 40	15 35	V.V.N.	2	22 53·5	21 37·2	22 7·7	20 48·0	21 51·6		
,, 6	11 50	12 54	S.B.B.	2	22 52·5	21 39·7	22 12·2	20 45·2	21 52·4	No. 2	
,, 9	14 25	15 29	S.B.B.	1	23 16·9	22 4·2	21 37·0	20 31·0	21 52·3	° ′	
,, 13	11 47	12 50	V.V.N.	1	23 17·0	22 7·2	21 36·2	20 27·5	21 52·0	21 52·7	
,, 16	15 0	16 13	V.V.N.	2	22 53·6	21 41·7	21 3·5	20 57·0	21 53·9		21 52·7
,, 20	11 48	13 0	S.B.B.	2	23 5·0	21 38·7	22 1·0	20 48·6	21 53·3	No. 1	
,, 23	14 42	15 45	S.B.B.	1	23 17·2	22 9·4	21 38·7	20 26·9	21 53·0	° ′	
,, 27	10 28	11 20	V.V.N.	1	23 16·0	22 11·2	21 37·5	20 29·0	21 53·4	21 52·7	
,, 30	14 40	15 46	V.V.N.	2	22 51·2	21 41·7	22 2·2	20 54·7	21 52·4		

The Mean Dip for the year ...	With Needle No. 1 =	° ′ 21 48·6
	With Needle No. 2 =	21 49·5

° ′

The Mean Dip for the year 1904 = 21 49·0

Absolute Magnetical Observations—Table III*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1904.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and four 3½ inch Needles by Dover viz., Nos. 3 and 4 from 1st January to 16th February and Nos. 1 and 2 from 19th February to 30th December.

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 1	13 5	16 0	S.B.B.	4	22 56·0	20 59·6	22 10·9	20 58·1	21 46·1		
„ 5	10 15	12 20	V.V.N.	4	22 52·5	20 58·5	22 8·2	20 54·0	21 43·3	No. 3	
„ 8	13 50	16 15	V.V.N.	3	21 53·7	21 22·7	22 27·0	21 30·0	21 48·3	21 47 7	
„ 12	11 35	13 49	S.B.B.	3	22 11·2	21 10·5	22 24·5	21 31·7	21 49·5		
„ 15	14 20	16 35	S.B.B.	4	22 54·2	20 59·0	22 7·9	20 52·7	21 43·5		21 46·0
„ 19	10 30	12 25	V.V.N.	4	22 50·6	20 58·5	22 6·6	21 2·4	21 44·5		
„ 22	14 0	15 58	V.V.N.	3	22 8·7	21 6·0	22 15·7	21 27·5	21 44·5	No. 4	
„ 26	11 10	13 0	V.V.N.	3	22 3·4	21 5·1	22 37·7	21 28·0	21 48·5	21 44·6	
„ 29	14 20	16 15	V.V.N.	4	22 38·0	21 2·5	22 4·7	21 8·2	21 45·8		
FEB. 2	11 0	13 7	S.B.B.	4	22 51·5	20 56·9	22 9·9	21 1·6	21 45·0	No. 3	
„ 5	14 20	16 29	S.B.B.	3	22 11·6	21 7·0	22 15·7	21 29·7	21 46·0	21 47·4	
„ 9	10 50	14 15	V.V.N.	3	22 6·0	21 4·5	22 37·6	21 27·5	21 48·9	No. 4	
„ 12	13 50	16 10	V.V.N.	4	22 51·0	20 59·5	22 13·0	20 50·1	21 43·4	21 45·0	21 46·5
„ 16	10 15	12 10	V.V.N.	4	22 29·7	21 0·0	22 40·0	20 56·5	21 46·5	No. 1	
„ 19	14 20	16 29	S.B.B.	1	21 56·2	21 24·5	22 51·0	20 57·0	21 47·2	21 47·1	
„ 23	10 20	12 30	V.V.N.	1	22 7·7	21 10·2	22 27·2	20 23·0	21 47·0	No. 2	
„ 26	14 12	16 15	V.V.N.	2	22 18·5	20 42·2	22 51·0	21 19·2	21 47·7	21 47·7	
MAR. 1	11 20	13 38	S.B.B.	2	22 24·4	20 30·0	22 52·4	21 17·9	21 46·2		
„ 4	14 8	16 12	S.B.B.	1	22 11·7	21 5·5	22 26·2	21 26·0	21 47·3	No. 1	
„ 8	10 15	12 25	V.V.N.	1	22 1·2	21 0·5	22 51·0	21 6·1	21 44·7	21 46·1	
„ 11	14 15	16 45	V.V.N.	2	22 32·0	20 27·5	22 55·0	21 21·0	21 48·9		
„ 15	12 7	14 22	S.B.B.	2	22 13·9	20 45·4	22 50·4	21 18·4	21 47·0		21 46·8
„ 18	14 10	16 17	S.B.B.	1	22 13·6	20 56·5	22 50·0	21 10·4	21 47·6		
„ 22	10 40	12 45	V.V.N.	1	22 13·5	20 48·2	22 57·7	21 0·2	21 44·9	No. 2	
„ 24	14 17	16 22	V.V.N.	2	22 29·7	20 34·7	22 57·0	21 20·0	21 50·3	21 47·3	
„ 29	11 19	13 24	S.B.B.	2	22 17·2	20 31·1	22 48·5	21 18·9	21 43·9		
APR. 2	12 30	14 35	S.B.B.	1	22 13·0	20 50·0	22 56·7	21 3·2	21 45·7		
„ 5	10 47	12 45	V.V.N.	1	22 16·0	20 52·5	22 48·0	20 58·7	21 43·8	No. 1	
„ 8	13 55	15 55	V.V.N.	2	22 14·0	20 44·2	22 56·7	21 16·5	21 47·8	21 44·9	
„ 12	11 20	13 34	S.B.B.	2	22 10·0	20 42·9	22 4·1	21 54·7	21 42·9		
„ 15	14 10	16 16	S.B.B.	1	22 13·7	20 54·0	22 47·5	21 3·7	21 44·7		21 45·5
„ 19	10 15	12 25	V.V.N.	1	21 59·2	20 56·5	22 30·2	21 26·7	21 43·1		
„ 22	13 55	15 52	V.V.N.	2	22 20·5	20 42·2	22 53·5	21 19·5	21 48·9	No. 2	
„ 26	11 25	13 44	S.B.B.	2	22 12·5	20 52·1	22 47·7	21 10·9	21 45·8	21 46·3	
„ 29	14 0	16 10	S.B.B.	1	22 15·0	20 50·0	22 40·2	21 23·1	21 47·1		

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 3	10 17	12 15	V.V.N.	1	22 12·7	20 45·5	22 47·5	21 19·2	21 45·8	No. 1 ° ′ 21 45·3	21 46·6
,, 6	14 20	16 15	V.V.N.	2	22 19·2	20 40·2	23 3·7	21 16·5	21 49·9		
,, 10	11 25	13 40	S.B.B.	2	22 20·0	20 41·0	22 51·5	21 19·1	21 47·9		
,, 13	14 0	16 6	S.B.B.	1	22 12·0	20 44·4	22 49·7	21 19·4	21 46·4		
,, 17	10 15	12 25	V.V.N.	1	22 22·6	20 53·0	22 45·0	20 58·2	21 44·7		
,, 20	14 13	16 20	V.V.N.	2	22 20·7	20 38·6	22 52·5	21 20·2	21 48·0		
,, 24	11 5	13 1	S.B.B.	2	22 28·0	20 33·7	22 48·9	21 17·1	21 46·9	No. 2 ° ′ 21 48·2	
,, 27	14 15	16 18	S.B.B.	1	22 11·9	20 43·6	22 46·0	21 19·1	21 45·1		
,, 31	10 17	12 0	V.V.N.	1	22 27·0	20 45·2	22 52·0	20 53·5	21 44·4		
JUNE 3	14 14	16 8	V.V.N.	2	22 14·5	20 31·7	22 50·2	21 17·5	21 43·5	No. 1 ° ′ 21 45·4	21 46·7
,, 7	11 20	13 21	S.B.B.	2	22 20·7	20 38·6	22 51·0	21 23·6	21 48·5		
,, 10	14 20	16 20	S.B.B.	1	22 34·2	20 37·9	22 48·2	20 59·6	21 45·0		
,, 14	10 15	12 25	V.V.N.	1	22 33·0	20 38·7	22 52·7	20 54·0	21 44·6		
,, 17	14 12	16 7	V.V.N.	2	22 22·5	20 34·0	23 2·5	21 16·0	21 48·8		
,, 21	11 20	13 27	S.B.B.	2	22 21·9	21 2·0	22 53·7	21 9·0	21 51·6	No. 2 ° ′ 21 48·1	
,, 24	14 15	16 23	S.B.B.	1	22 36·0	20 36·7	22 58·1	20 57·9	21 47·2		
,, 28	9 30	11 30	V.V.N.	1	22 26·7	20 49·7	22 51·2	20 51·2	21 44·7		
JULY 1	14 17	16 21	V.V.N.	2	22 23·0	20 38·0	23 6·2	21 10·0	21 49·3	No. 1 ° ′ 21 45·7	21 46·8
,, 5	10 30	12 32	S.B.B.	2	22 18·1	20 28·2	23 10·6	21 15·6	21 48·1		
,, 8	13 50	15 45	S.B.B.	1	22 32·5	20 55·1	22 49·9	20 51·5	21 47·2		
,, 12	10 20	12 25	V.V.N.	1	22 33·6	20 40·7	22 43·5	20 55·5	21 43·3		
,, 15	14 15	16 6	V.V.N.	2	22 26·0	20 35·6	22 58·7	21 11·0	21 47·8		
,, 19	10 35	12 18	S.B.B.	2	22 22·5	20 35·9	22 45·0	21 12·6	21 44·0		
,, 22	13 24	15 17	S.B.B.	1	22 26·6	20 50·4	22 39·5	21 13·2	21 47·4	No. 2 ° ′ 21 47·7	
,, 26	10 45	12 30	V.V.N.	1	22 16·0	20 50·5	22 39·7	21 13·2	21 44·8		
,, 29	14 20	16 8	V.V.N.	2	22 23·2	20 38·9	23 1·2	21 13·0	21 49·1		
AUG. 2	11 22	13 5	S.B.B.	2	22 24·2	20 37·1	22 57·0	21 11·0	21 47·3	No. 1 ° ′ 21 46·5	21 46·3
,, 5	14 15	16 16	S.B.B.	1	22 31·0	20 47·4	22 43·2	21 13·4	21 48·7		
,, 9	10 50	12 30	V.V.N.	1	22 9·7	21 0·5	22 38·7	21 13·6	21 45·4		
,, 12	14 13	16 0	V.V.N.	2	22 22·2	20 39·7	22 53·0	21 13·0	21 47·0		
,, 16	11 10	13 11	S.B.B.	2	22 21·4	20 40·5	22 41·5	21 15·1	21 44·6		
,, 19	13 15	15 17	S.B.B.	1	22 28·4	20 50·1	22 41·5	21 12·9	21 48·2		
,, 23	10 20	12 25	V.V.N.	1	22 20·2	20 53·0	22 43·1	20 58·0	21 43·6	No. 2 ° ′ 21 46·2	
,, 26	14 14	16 10	V.V.N.	2	22 19·7	20 40·7	22 57·5	21 13·0	21 47·7		
,, 30	11 0	13 8	S.B.B.	2	22 21·4	20 41·9	22 37·1	21 17·0	21 44·3		

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		
SEPT. 2	13 50	15 48	S.B.B.	1	22 11·5	21 1·0	22 37·2	21 14·6	21 46·1		
,, 6	10 20	12 8	V.V.N.	1	22 21·7	20 54·2	22 47·2	20 59·5	21 45·6	No. 1 ° ′	
,, 9	14 17	16 17	V.V.N.	2	22 24·0	20 36·2	22 55·5	21 16·0	21 47·9	21 46·1	
,, 13	12 0	13 56	S.B.B.	2	22 21·5	20 40·4	22 40·5	21 15·2	21 44·4		
,, 16	13 50	15 47	S.B.B.	1	22 13·1	21 0·0	22 32·1	21 18·1	21 45·8		21 46·7
,, 20	10 20	12 30	V.V.N.	1	22 27·5	20 51·0	22 42·2	21 1·0	21 45·4		
,, 23	14 23	16 25	V.V.N.	2	22 26·0	20 45·2	21 59·0	21 17·5	21 51·9	No. 2 ° ′	
,, 27	11 5	13 19	S.B.B.	2	22 22·2	20 42·2	22 34·0	21 22·1	21 45·1	21 47·3	
,, 30	14 5	16 12	S.B.B	1	22 23·6	20 53·5	22 42·7	21 11·4	21 47·8		
OCT. 4	10 12	12 13	V.V.N.	1	22 31·7	20 54·2	22 45·5	20 57·7	21 47·3		
,, 7	14 19	16 20	V.V.N.	2	22 25·2	20 44·6	22 49·5	21 19·2	21 49·6	No. 1 ° ′	
,, 11	11 5	13 11	S.B.B.	2	22 22·2	20 41·9	22 37·1	21 17·4	21 44·6	21 47·9	
,, 14	14 20	16 20	S.B.B.	1	22 24·2	20 51·7	22 40·0	21 12·0	21 47·0		
,, 17	10 20	12 45	V.V.N.	1	22 29·0	21 59·7	22 45·7	21 6·5	21 50·2		21 47·8
,, 21	14 7	16 20	V.V.N.	2	22 25·7	20 45·5	22 55·5	21 16·2	21 50·7	No. 2 ° ′	
,, 25	11 0	13 4	S.B.B.	2	22 23·0	20 44·0	22 34·0	21 22·0	21 45·7	21 47·6	
,, 28	14 0	16 16	S.B.B.	1	22 26·2	20 50·0	22 40·2	21 11·7	21 47·0		
NOV. 1	10 20	12 40	V.V.N.	1	22 36·5	20 48·7	22 51·0	20 57·2	21 48·3		
,, 4	14 20	16 10	V.V.N.	2	22 28·5	20 40·0	23 3·2	21 16·5	21 52·0	No. 1 ° ′	
,, 8	10 15	12 32	S.B.B.	2	22 29·9	20 34·6	23 0·0	21 14·9	21 49·8	21 48·9	
,, 11	11 35	13 43	S.B.B.	1	22 35·1	20 49·9	22 49·7	20 55·0	21 47·4		
,, 15	10 20	12 20	V.V.N.	1	22 32·7	21 4·7	22 53·0	20 56·2	21 51·6		21 49·5
,, 18	14 12	16 30	V.V.N.	2	22 29·7	20 33·2	23 5·1	21 11·2	21 49·8		
,, 22	11 5	13 13	S.B.B.	2	22 27·9	20 37·2	22 59·6	21 14·4	21 49·8	No. 3 ° ′	
,, 25	14 5	16 16	S.B.B.	1	22 37·1	20 49·4	22 51·0	20 55·9	21 48·3	21 50·3	
,, 29	12 20	14 20	V.V.N.	1	22 33·7	20 51·0	22 54·0	20 56·0	21 48·7		
DEC. 2	14 10	16 0	V.V.N.	2	22 28·5	20 39·0	23 3·5	21 14·5	21 51·4		
,, 6	11 15	13 28	S.B.B.	2	22 24·1	20 43·6	23 0·7	21 17·0	21 51·3	No. 1 ° ′	
,, 9	13 50	16 2	S.B.B.	1	22 34·6	20 53·2	22 52·1	20 59·4	21 49·8	21 50·1	
,, 13	11 20	13 22	V.V.N.	1	22 42·5	20 49·7	22 49·5	21 58·5	21 50·0		
,, 16	14 20	16 40	V.V.N.	2	22 25·5	20 43·2	23 3·0	21 16·0	21 51·9		21 50·9
,, 20	11 10	13 36	S.B.B.	2	22 22·0	20 48·7	23 1·2	21 13·9	21 51·4		
,, 23	14 10	16 17	S.B.B.	1	22 45·7	20 50·6	22 48·7	20 58·2	21 50·8	No. 2 ° ′	
,, 27	10 5	11 50	V.V.N.	1	22 39·5	20 51·5	22 51·7	20 57·5	21 50·0	21 51·5	
,, 30	14 15	16 20	V.V.N.	2	22 22·0	20 44·7	22 52·7	21 26·2	21 51·4		

The Mean Dip for the year 1904 = 21 47·2

NOTE.—The yearly means have been calculated from all available observations during the year and are not comparable.

Absolute Magnetical Observations—Table III*b*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1904.

Taken with New (Dover Charlton's) Dip Circle, with Microscopes No. 110 and two 3½ inch Needles Nos. 1 and 2 by Dover.

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 5	14 20	15 27	S.B.B.	1	21 48·7	21 26·6	22 8 1	21 46·7	21 47·5		
„ „	15 33	16 25	S.B.B.	2	21 35·5	21 11·9	22 29·5	21 52·5	21 47·3		
„ 12	14 15	15 20	V.V.N.	1	21 47·7	21 27·7	22 12·6	21 51·0	21 49·7	No. 1 ° ′	
„ „	15 25	16 25	V.V.N.	2	21 43·9	21 10·4	22 19·5	22 52·9	21 46·7	21 46·9	
„ 19	14 20	15 20	S.B.B.	1	21 56·7	21 22·5	22 7·6	21 48·7	21 48·9		21 46·9
„ „	15 27	16 27	S.B.B.	2	21 47·2	21 10·5	22 19·5	21 52·1	21 47·3	No. 2 ° ′	
„ 26	13 55	15 0	V.V.N.	1	21 51·5	21 24·5	21 53·2	21 37·4	21 41·6	21 46·9	
„ „	15 5	16 10	V.V.N.	2	21 34·5	21 8·0	22 30·0	21 52·5	21 46·2		
FEB. 2	14 20	15 23	S.B.B.	1	21 48·5	21 27·1	22 5·9	21 48·1	21 47·4		
„ „	15 29	16 30	S.B.B.	2	21 35·0	21 14·0	22 29·1	21 52·5	21 47·6		
„ 12	11 10	12 7	S.B.B.	1	21 44·6	21 27·9	22 14·7	21 48 0	21 48·8	No. 1 ° ′	
„ „	12 14	13 14	S.B.B.	2	21 41·1	21 10·7	22 22·4	21 54·9	21 47·3	21 46·8	
„ 20	11 5	12 13	S.B.B.	1	21 42·2	21 19·6	22 5·4	21 56·6	21 45·9		21 46·5
„ „	12 20	13 22	S.B.B.	2	21 44·9	21 5·9	22 12·9	21 57·4	21 45·2	No. 2 ° ′	
„ 27	10 20	11 38	V.V.N.	1	21 38·2	21 25·2	22 3·2	21 53·5	21 45·0	21 46 2	
„ „	11 45	13 0	V.V.N.	2	21 38·1	21 12·4	22 20·0	21 48·4	21 44·7		
MAR. 19	11 13	15 10	S.B.B.	1	21 38·4	21 28·0	22 6·7	21 54·5	21 46·9		
„ „	15 16	16 18	S.B.B.	2	21 34·4	21 3·1	22 29·5	21 54·7	21 45·4	No. 1 ° ′	
„ 26	10 15	11 33	V.V.N.	1	21 40·7	21 23·0	22 11·4	21 35·0	21 42·5	21 44 7	21 44·6
„ „	11 42	12 59	V.V.N.	2	21 35·6	21 4·6	22 17·2	21 56·7	21 43·5	No. 2 ° ′	
APR. 2	8 30	9 25	S.B.B.	1	21 45·2	21 36·6	22 2·1	21 28 5	21 43·1	21 44·4	
„ „	9 30	10 20	S.B.B.	2	21 35·1	21 18·4	22 15·7	21 54·1	21 45·8		
„ 9	10 15	11 35	V.V.N.	1	21 41·2	21 22·2	22 11·9	21 47·4	21 43·9		
„ „	11 42	13 0	V.V.N.	2	21 38·4	21 8·5	22 14·0	21 48·2	21 42·3	No. 1 ° ′	
„ 16	11 10	12 13	S.B.B.	1	21 37·1	21 26·6	22 6·6	21 43·7	21 43·5	21 44·3	
„ „	12 20	13 24	S.B.B.	2	21 40·1	21 4·6	22 15·2	21 49·1	21 42·2		21 44·2
„ 23	11 10	12 20	V.V.N.	1	21 46·5	21 25·5	22 13·7	21 40·5	21 46·5	No. 2 ° ′	
„ „	12 20	13 22	V.V.N.	2	21 39·2	21 8·5	22 14·5	21 58·1	21 45·1	21 44·1	
„ 30	11 20	12 25	S.B.B.	1	21 51·1	21 25·6	21 59·5	21 40·1	21 44·3		
„ „	12 33	13 43	S.B.B.	2	21 37·2	21 13·7	22 12·4	21 56·8	21 45·0		

1904. Date.	Bombay Civil Time (0 to 24 hours.) At commencement.	At conclusion.	Observer.	Needle marked	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	H. m.	H. m.			° ′	° ′	° ′	° ′	° ′	° ′	
MAY 7	10 20	11 27	V.V.N.	1	21 45·2	21 26·1	22 8·1	21 38·7	21 44·5		
,, ,,	11 35	12 51	V.V.N.	2	21 35·5	21 13·7	22 11·9	21 48·9	21 42·5		
,, 14	11 8	12 2	S.B.B.	1	21 33·9	21 18·7	22 13·5	21 51·6	21 44·4	No. 1, 21 45·0	
,, ,,	12 8	13 6	S.B.B.	2	21 38·7	21 19·4	22 13·7	21 47·6	21 44·8		21 45·0
,, 21	10 35	11 40	V.V.N.	1	21 45·6	21 24·1	22 15·7	21 39·1	21 46·1	No. 2, 21 44·9	
,, ,,	11 45	12 45	V.V.N.	2	21 43·7	21 16·0	22 19·9	21 51·5	21 47·8		
,, 28	11 35	12 37	S.B.B.	1	21 37·9	21 13·8	22 14·7	21 54·1	21 45·1		
,, ,,	12 42	13 54	S.B.B.	2	21 39·2	21 13·1	22 17·2	21 49·3	21 44·7		
JUNE 4	10 20	11 28	V.V.N.	1	21 41·5	21 22·7	22 10·2	21 38·4	21 43·2		
,, ,,	11 37	12 41	V.V.N.	2	21 39·2	21 12·4	22 21·6	21 53·5	21 46·7		
,, 11	10 40	11 55	S.B.B.	1	21 43·8	21 25·9	22 11·7	21 38·6	21 45·0	No. 1, 21 44·4	
,, ,,	12 2	13 12	S.B.B.	2	21 34·5	21 18·5	22 12·0	22 1·9	21 46·7		21 45·8
,, 18	10 30	11 35	V.V.N.	1	21 36·6	21 25·6	22 9·0	21 44·6	21 43·9	No. 2, 21 47·2	
,, ,,	11 43	13 0	V.V.N.	2	21 35·5	21 17·6	22 23·2	21 52·7	21 47·2		
,, 25	10 50	11 54	S.B.B.	1	21 51·6	21 14·6	22 5·6	21 50·6	21 45·6		
,, ,,	12 18	13 35	S.B.B.	2	21 38·8	20 58·6	22 38·2	21 57·5	21 48·2		
JULY 2	10 40	11 39	V.V.N.	1	21 45·7	21 21·0	22 10·0	21 41·1	21 44·4		
,, ,,	11 46	13 0	V.V.N.	2	21 35·0	21 17·2	22 17·0	21 52·9	21 45·5		
,, 9	11 0	12 4	S.B.B.	1	21 59·2	21 20·1	22 0·0	21 31·1	21 42·6		
,, ,,	12 9	13 0	S.B.B.	2	21 35·6	21 21·1	22 19·1	21 40·6	21 44·1	No. 1, 21 43·8	
,, 16	10 35	11 46	V.V.N.	1	21 46·2	21 22·7	22 12·4	21 34·7	21 44·0		21 44·4
,, ,,	11 55	13 0	V.V.N.	2	21 40·4	21 14·4	22 17·0	21 47·2	21 44·7	No. 2, 21 45·1	
,, 23	10 52	11 45	S.B.B.	1	21 47·8	21 18·0	22 14·1	21 36·9	21 44·2		
,, ,,	11 50	12 43	S.B.B.	2	21 33·5	21 23·9	22 20·9	21 38·0	21 44·1		
,, 30	11 5	12 2	V.V.N.	1	21 47·5	21 19·1	22 15·1	21 33·7	21 43·8		
,, ,,	12 10	13 8	V.V.N.	2	21 45·7	21 11·0	21 17·1	21 54·7	21 47·1		
AUG. 6	11 20	12 10	S.B.B.	1	21 50·6	21 19·5	22 18·4	21 35·2	21 45·9		
,, ,,	12 15	13 7	S.B.B.	2	21 41·9	21 16·2	22 17·7	21 53·6	21 47·3		
,, 13	10 42	11 44	V.V.N.	1	21 55·0	21 20·2	22 11·6	21 43·6	21 47·6	No. 1, 21 45·2	
,, ,,	11 50	13 3	V.V.N.	2	21 38·6	21 11·0	22 21·5	21 50·6	21 45·4		21 45·4
,, 20	11 10	12 0	S.B.B.	1	21 45·4	21 11·5	22 12·7	21 44·1	21 43·4	No. 2, 21 45·6	
,, ,,	12 5	12 58	S.B.B.	2	21 42·4	21 14·4	22 14·8	21 49·1	21 45·2		
,, 27	10 41	11 45	V.V.N.	1	21 58·1	20 48·5	22 25·2	21 44·5	21 44·1		
,, ,,	11 55	13 10	V.V.N.	2	21 33·5	21 18·5	22 19·6	21 47·4	21 44·7		

1904. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
SEPT. 2	11 23	12 15	S.B.B.	1	21 34·5	21 21·6	22 12·5	21 47·1	21 43·9		
,, ,,	12 21	13 11	S.B.B.	2	21 34·1	21 16·9	22 21·1	21 52·6	21 46·2		
,, 10	11 7	12 15	V.V.N.	1	21 56·2	20 58·6	22 21·9	21 31·5	21 42·0	No. 1 21 43·5	
,, ,,	12 23	13 20	V.V.N.	2	21 32·5	21 6·2	22 24·4	21 49·1	21 43·0		21 44·6
,, 17	11 0	11 55	S.B.B.	1	21 44·8	21 22·1	22 7·6	21 44·1	21 44·6	No. 2 21 45·7	
,, ,,	12 0	13 22	S.B.B.	2	21 41·2	21 14·1	22 15·7	21 55·0	21 46·5		
,, 24	10 17	11 22	V.V.N.	1	21 32·5	21 32·0	22 5·2	21 43·9	21 43·4		
,, ,,	11 32	12 52	V.V.N.	2	21 33·2	21 22·4	22 13·9	21 59·6	21 47·3		
OCT. 10	10 20	11 30	V.V.N.	1	21 51·4	21 23·5	22 14·7	21 41·2	21 47·7		21 47·3
,, ,,	11 45	12 50	V.V.N.	2	21 40·6	21 15·6	22 17·9	21 53·9	21 47·0		
NOV. 12	11 15	12 20	S.B.B.	1	21 49·7	21 27·9	22 10·9	21 39·1	21 46·9		21 47·3
,, ,,	12 28	13 34	S.B.B	2	21 45·2	21 14·3	22 16·3	21 55·4	21 47·8		
DEC. 17	10 25	11 57	V.V.N.	1	21 52·9	21 24·7	22 19·5	21 48·0	21 51·3		21 50·9
,, ,,	12 5	13 10	V.V.N.	2	21 47·0	21 17·5	22 21·4	21 56·5	21 50·6		

The Mean Dip for the year ... { With Needle No. 1 = 21° 45·9 / With Needle No. 2 = 21° 46·3

The Mean Dip for the year 1904 = 21° 46·1′

NOTE.—The yearly means have been calculated from all available observations during the year and are not comparable.

Absolute Magnetical Observations—Table I.

Observations of Vibration and Deflection, taken with the Kew Unifilar Magnetometer (No. 23, by Elliott Brothers) for the determination of Absolute Horizontal Force.

1905.

1905. Date.	Civil Time Mean.	Magnet N. 23a. Time of one vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23a by N. 23a at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot. ($X_{0\cdot8}$).	1·0 foot. ($X_{1\cdot0}$).	Difference. $X_{0\cdot8} - X_{1\cdot0}$.	Mean. $\frac{X_{0\cdot8}+X_{1\cdot0}}{2}$.	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	H. m.	S.	Sc. div	°	S.		°	° ′ ″	″ ′ ″	°		°								
JAN. 4	11 53	2·8605	0·34	79·7	−0·2	16·28	79·0	17 15 40	8 46 40	79·6	16·05	79·6	S.B.B.	·62833	8·1111	8·1094	+·0017	8·1102		
,, ,,	14 43	2·8613	0·36	80·4	,,	15·79	80·5	17 15 25	8 46 35	80·0	15·90	80·1	S.B.B.	·62826	8·1100	8·1079	+·0021	8·1089		
,, 11	11 29	2·8597	0·46	80·0	+0·3	16·44	78·6	17 14 17	8 46 2	81·4	15·97	79·0	V.V.N.	·62812	8·1173	8·1150	+·0023	8·1161		
,, ,,	15 43	2·8624	0·45	80·8	,,	15·39	80·2	17 15 31	8 46 30	80·7	15·46	80·0	V.V.N.	·62809	8·1061	8·1049	+·0012	8·1055		
,, 18	11 57	2·8607	0·40	81·4	+0·2	16·23	79·5	17 14 35	8 46 9	79·5	16·23	79·9	S.B.B.	·62819	8·1161	8·1143	+·0018	8·1152		
,, ,,	14 4	2·8616	0·42	80·9	,,	15·58	80·7	17 14 45	8 46 12	78·9	16·01	80·0	S.B.B.	·62807	8·1130	8·1113	+·0017	8·1121		
,, 25	11 34	2·8604	0·51	78·0	0·0	16·89	74·9	17 14 55	8 46 16	79·7	16·79	75·7	V.V.N.	·62807	8·1124	8·1109	+·0015	8·1116		
,, ,,	15 3	2·8621	0·50	82·5	,,	15·98	79·1	17 15 20	8 46 31	81·0	16·13	78·1	V.V.N.	·62823	8·1089	8·1070	+·0019	8·1079	8·1109	3·7398
FEB. 1	11 49	2·8596	0·49	75·4	−0·5	17·87	70·2	17 15 28	8 46 12	75·1	17·77	71·5	S.B.B.	·62786	8·1145	8·1156	−·0011	8·1150		
,, ,,	14 42	2·8597	0·51	75·8	,,	17·09	74·0	17 15 40	8 46 21	75·2	17·23	73·7	S.B.B.	·62794	8·1137	8·1145	−·0008	8·1141		
,, 8	11 25	2·8586	0·48	73·2	−0·9	17·56	70·0	17 16 22	8 47 5	74·8	17·41	71·8	V.V.N.	·62832	8·1124	8·1102	+·0022	8·1113		
,, ,,	15 1	2·8611	0·48	77·0	,,	16·67	74·5	17 16 12	8 46 52	76·3	16·95	74·0	V.V.N.	·62809	8·1079	8·1066	+·0013	8·1072		
,, 15	11 55	2·8591	0·37	76·1	0·0	16·61	77·4	17 15 20	8 46 26	78·2	16·63	77·9	S.B.B.	·62830	8·1145	8·1133	+·0012	8·1139	8·1118	3·7402
,, ,,	14 13	2·8614	0·39	78·3	,,	16·15	79·0	17 15 30	8 46 31	78·0	16·43	78·3	S.B.B.	·62801	8·1094	8·1081	+·0013	8·1087		
,, 22	11 30	2·8600	0·51	80·0	−0·2	16·95	76·4	17 14 21	8 45 54	80·7	16·86	76·8	V.V.N.	·62815	8·1163	8·1156	+·0007	8·1159		
,, ,,	15 20	2·8624	0·49	82·1	,,	16·00	80·2	17 14 55	8 46 11	81·4	16·20	79·6	V.V.N.	·62806	8·1089	8·1079	+·0010	8·1084		
MAR. 1	11 54	2·8585	0·59	75·2	−0·6	17·01	75·5	17 15 9	8 46 21	75·0	17·02	75·9	S.B.B.	·62804	8·1186	8·1173	+·0013	8·1179		
,, ,,	15 4	2·8593	0·51	75·3	,,	16·64	76·3	17 15 17	8 46 25	74·8	16·75	76·3	S.B.B.	·62794	8·1163	8·1150	+·0013	8·1156		
,, 8	11 30	2·8612	0·42	80·5	+0·1	16·35	78·1	17 15 5	8 46 15	80·2	16·15	78·7	V.V.N.	·62807	8·1113	8·1105	+·0008	8·1109		
,, ,,	14 50	2·8635	0·49	81·7	,,	15·42	80·0	17 15 22	8 46 33	81·2	15·50	79·6	V.V.N.	·62790	8·1038	8·1018	+·0020	8·1028		
,, 15	12 5	2·8627	0·39	83·5	0·0	15·70	81·5	17 13 39	8 45 33	84·2	15·70	82·2	S.B.B.	·62791	8·1113	8·1105	+·0008	8·1109		
,, ,,	14 56	2·8637	0·45	84·5	,,	15·00	83·4	17 13 55	8 45 41	84·7	15·30	83·0	S.B.B.	·62793	8·1079	8·1070	+·0009	8·1074	8·1142	3·7413
,, 22	11 13	2·8607	0·45	81·5	−0·5	16·70	79·2	17 13 51	8 45 40	78·2	16·51	79·8	V.V.N.	·62775	8·1201	8·1191	+·0010	8·1196		
,, ,,	14 57	2·8611	0·50	81·2	,,	15·95	81·2	17 14 2	8 45 42	81·5	16·09	81·1	V.V.N.	·62801	8·1148	8·1143	+·0005	8·1145		
,, 29	12 31	2·8589	0·50	82·4	−0·2	16·94	81·2	17 12 54	8 45 11	81·7	16·69	81·7	S.B.B.	·62813	8·1262	8·1253	+·0009	8·1257		
,, ,,	15 3	2·8618	0·46	83·0	,,	15·86	82·7	17 13 14	8 45 21	82·1	16·22	82·3	S.B.B.	·62788	8·1169	8·1161	+·0008	8·1165		

1906. Date.		Civil Time Mean.	Magnet N, 23a. Time of one vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23a by N. 23a at Distance. 0·8 foot.	1·0 foot.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflection at distance. 0·8 foot. ($X_{0·8}$).	1·0 foot. ($X_{1·0}$).	Difference. $X_{0·8} + X_{1·0}$.	Mean. $\frac{X_{0·8} + X_{1·0}}{2}$.	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		h. m.	S.	So. div	°	S.			° ′ ″	° ′ ″	°										
APR.	5	12 19	2·8616	0·57	80·4	−0·1	15·90	81·3	17 14 40	8 46 2	80·0	15·75	81·7	S.B.B.	·62783	8·1117	8·1109	+·0008	8·1113		
,,	,,	14 57	2·8632	0·58	81·4	,,	14·75	82·5	17 15 0	8 46 14	80·9	15·27	82·1	S.B.B.	·62800	8·1059	8·1049	+·0010	8·1054		
,,	12	12 1	2·8621	0·51	82·1	−0·1	16·21	82·0	17 13 35	8 45 34	82·7	16·10	82·3	S.B.B.	·62775	8·1135	8·1122	+·0013	8·1128		
,,	,,	15 0	2·8630	0·47	83·8	,,	15·48	83·0	17 13 47	8 45 40	83·0	15·77	82·9	S.B.B.	·62791	8·1113	8·1102	+·0011	8·1107	8·1108	3·7397
,,	19	11 37	2·8633	0·41	86·8	−0·1	15·57	83·9	17 12 30	8 45 0	86·7	15·45	84·4	V.V.N.	·62777	8·1145	8·1135	+·0010	8·1140		
,,	,,	14 59	2·8637	0·48	87·0	,,	14·99	85·5	17 12 56	8 45 3	86·7	15·14	85·0	V.V.N.	·62783	8·1119	8·1120	−·0001	8·1119		
,,	26	11 44	2·8629	0·44	84·2	−0·1	15·85	83·8	17 13 44	8 45 36	84·1	15·42	84·2	S.B.B.	·62770	8·1111	8·1102	+·0009	8·1106		
,,	,,	15 5	2·8632	0·50	85·9	,,	14·75	85·2	17 14 0	8 45 44	84·3	15·00	85·0	S.B.B.	·62812	8·1104	8·1094	+·0010	8·1099		
MAY.	3	11 27	2·8629	0·49	86·1	+0·2	15·22	85·6	17 12 10	8 44 47	87·3	15·24	86·1	V.V.N.	·62780	8·1156	8·1150	+·0006	8·1153		
,,	,,	14 53	2·8660	0·46	87·9	,,	14·25	87·3	17 12 27	8 45 6	88·8	14·74	87·1	V.V.N.	·62765	8·1061	8·1040	+·0021	8·1050		
,,	10	11 29	2·8642	0·40	88·9	−0·2	15·23	87·0	17 11 53	8 44 37	87·8	15·23	87·3	S.B.B.	·62765	8·1152	8·1148	+·0004	8·1150		
,,	,,	15 21	2·8643	0·49	87·2	,,	14·44	88·8	17 12 19	8 44 50	88·0	14·75	88·4	S.B.B.	·62774	8·1115	8·1111	+·0004	8·1113		
,,	17	11 23	2·8635	0·37	88·0	+0·1	14·92	88·5	17 11 20	8 44 25	88·7	14·91	88·8	V.V.N.	·62765	8·1178	8·1167	+·0011	8·1172	8·1132	3·7408
,,	,,	14 27	2·8646	0·46	91·6	,,	14·64	89·9	17 11 36	8 44 35	89·2	14·77	89·8	V.V.N.	·62780	8·1161	8·1150	+·0011	8·1155		
,,	24	11 48	2·8638	0·74	88·2	−0·2	14·82	88·1	17 11 50	8 44 35	89·1	14·81	89·1	S.B.B.	·72775	8·1143	8·1139	+·0004	8·1141		
,,	,,	15 21	2·8649	0·72	89·1	,,	14·26	90·0	17 12 2	8 44 40	89·4	14·52	89·9	S.B.B.	·72771	8·1109	8·1107	+·0002	8·1108		
,,	31	11 45	2·8643	0·80	91·2	+0·2	14·94	89·5	17 10 42	8 44 4	90·4	14·94	89·9	V.V.N.	·62757	8·1184	8·1176	+·0008	8·1180		
,,	,,	14 27	2·8657	0·81	90·4	,,	14·17	91·0	17 11 43	8 44 33	89·9	14·51	90·8	V.V.N.	·62760	8·1104	8·1098	+·0006	8·1101		
JUNE	7	12 21	2·8646	0·50	90·9	+0·2	14·67	90·3	17 10 54	8 44 7	91·7	14·56	90·9	S.B.B.	·62762	8·1160	8·1156	+·0004	8·1158		
,,	,,	15 24	2·8664	0·49	92·0	,,	13·95	91·5	17 11 17	8 44 17	90·9	14·25	91·4	S.B.B.	·62751	8·1109	8·1107	+·0002	8·1108		
,,	14	11 56	2·8646	0·53	91·6	+0·2	14·82	90·1	17 10 57	8 44 4	90·7	14·75	90·3	V.V.N.	·62758	8·1173	8·1175	−·0002	8·1174		
,,	,,	14 24	2·8660	0·53	91·9	,,	14·18	91·4	17 11 20	8 44 17	91·7	14·39	91·1	V.V.N.	·62758	8·1109	8·1109	·0000	8·1109		
,,	21	12 0	2·8647	0·53	90·9	−0·1	14·48	90·6	17 11 35	8 44 25	90·2	14·36	91·0	S.B.B.	·62765	8·1143	8·1141	+·0002	8·1142	8·1136	3·7410
,,	,,	15 21	2·8657	0·53	91·5	,,	14·09	91·7	17 11 29	8 44 24	90·1	14·22	91·7	S.B.B.	·62754	8·1124	8·1123	+·0001	8·1123		
,,	28	11 11	2·8640	0·56	87·8	−0·4	15·42	84·5	17 12 13	8 45 10	84·7	15·43	84·7	V.V.N.	·62757	8·1161	8·1128	+·0033	8·1144		
,,	,,	14 34	2·8636	0·53	85·2	,,	15·13	84·7	17 12 25	8 45 6	85·2	15·29	84·7	V.V.N.	·62760	8·1139	8·1119	+·0020	8·1129		
JULY	5	11 58	2·8627	0·41	84·9	−0·3	15·50	83·8	17 12 22	8 44 55	86·3	15·49	84·0	V.V.N.	·62773	8·1154	8·1145	+·0009	8·1149		
,,	,	15 06	2·8632	0·45	84·4	,,	14·93	84·0	17 12 57	8 45 6	85·7	15·10	84·4	V.V.N.	·62780	8·1120	8·1119	+·0001	8·1119		
,,	12	11 27	2·8637	0·64	88·8	−0·6	15·16	86·1	17 11 52	8 44 37	87·1	15·04	86·4	V.V.N.	·62760	8·1167	8·1163	+·0004	8·1165		
,,	,,	14 59	2·8648	0·61	89·4	,,	14·61	87·1	17 11 56	8 44 45	88·4	14·66	87·0	V.V.N.	·62760	8·1130	8·1117	+·0013	8·1123		
,,	19	11 48	2·8634	0·49	87·3	−0·6	15·18	85·3	17 11 57	8 44 36	87·5	15·27	85·5	S.B.B.	·62771	8·1160	8·1160	·0000	8·1160		
,,	,,	14 58	2·8634	0·51	87·5	,,	14·87	86·4	17 12 15	8 44 45	87·3	15·11	86·2	S.B.B.	·62784	8·1150	8·1150	·0000	8·1150		
,,	26	11 27	2·8636	0·42	84·2	−0·4	15·24	83·6	17 12 39	8 45 1	85·4	15·25	83·8	V.V.N.	·62752	8·1122	8·1117	+·0005	8·1119		
,,	,,	14 57	2·8637	0·41	84·0	,,	14·85	84·1	17 12 47	8 45 12	85·1	14·99	84·0	V.V.N.	·62757	8·1115	8·1100	+·0015	8·1107		

Aug.	3	11	17	2·8643	0·55	83·4	−0·9	14·45	83·2	17	13	37	8	45	27	84·6	14·46	83·7	S.B.B.	·62751	8·1062	8·1059	+·0003	8·1060		
,,	,,	14	20	2·8652	0·51	85·5	,,	14·05	85·0	17	14	2	8	45	40	84·9	14·40	84·7	S.B.B.	·62771	8·1038	8·1035	+·0003	8·1036		
,,	9	11	27	2·8637	0·51	87·6	−1·0	15·21	84·4	17	11	50	8	44	37	87·6	15·07	84·9	V.V.N.	·62757	8·1156	8·1150	+·0006	8·1153		
,,	,,	14	56	2·8650	0·50	87·7	,,	14·74	85·1	17	12	7	8	44	47	88·0	14·82	85·0	V.V.N.	·62747	8·1107	8·1098	+·0009	8·1102		
,,	16	11	16	2·8625	0·41	85·5	−0·7	15·22	85·0	17	11	55	8	44	37	85·6	15·22	85·3	S.B.B.	·62761	8·1188	8·1186	+·0002	8·1187	8·1094	3·7391
,,	,,	14	21	2·8648	0·44	87·1	,,	14·40	86·3	17	12	2	8	44	41	87·1	14·55	86·0	S.B.B.	·62741	8·1120	8·1117	+·0003	8·1118		
,,	24	11	14	2·8631	0·58	82·8	−0·8	15·93	87·2	17	12	57	8	45	20	84·2	15·17	83·0	V.V.N.	·62762	8·1119	8·1100	+·0019	8·1109		
,,	,,	15	1	2·8649	0·58	86·5	,,	14·57	84·0	17	13	11	8	45	13	85·9	14·75	83·9	V.V.N.	·62760	8·1076	8·1076	·0000	8·1076		
,,	30	11	10	2·8643	0·57	86·7	−0·7	14·72	85·0	17	13	24	8	45	17	86·4	14·46	85·4	V.V.N.	·62764	8·1081	8·1083	−·0002	8·1082		
,,	,,	15	8	2·8673	0·57	89·5	,,	13·90	86·2	17	13	0	8	45	7	88·4	14·28	85·8	V.V.N.	·62747	8·1020	8·1020	·0000	8·1020		
Sept.	6	11	28	2·8647	0·67	84·7	−0·8	14·48	84·2	17	14	2	8	45	48	83·4	14·46	84·4	V.V.N.	·62754	8·1055	8·1042	+·0013	8·1048		
,,	,,	15	4	2·8656	0·64	86·9	,,	14·19	85·0	17	13	17	8	45	17	87·4	14·24	84·9	V.V.N.	·62754	8·1040	8·1038	+·0002	8·1039		
,,	13	13	10	2·8621	0·51	81·2	−0·2	15·33	82·4	17	14	17	8	45	55	80·0	15·25	82·1	S.B.B.	·62768	8·1126	8·1113	+·0013	8·1119		
,,	,,	14	44	2·8624	0·55	81·6	,,	15·13	81·8	17	14	22	8	45	57	80·7	15·22	82·0	S.B.B.	·62783	8 1109	8·1098	+·0011	8·1103	8·1069	3·7379
,,	21	12	8	2·8648	0·53	86·3	−0·2	14·53	85·2	17	12	45	8	44	48	88·1	14·45	85·5	S.	·62748	8·1076	8·1090	−·0014	8·1083		
,,	,,	14	59	2·8659	0·52	88·2	,,	14·00	86·3	17	12	30	8	45	0	89·5	14·15	86·2	S.	·62758	8·1057	8·1048	+·0009	8·1052		
,,	27	11	13	2·8645	0·46	87·0	−0·9	14·27	85·0	17	13	30	8	45	20	86·7	14·12	85·5	S.B.B.	·62774	8·1074	8·1076	−·0002	8·1075		
,,	,,	14	26	2·8654	0·50	87·5	,,	13·25	86·4	17	13	52	8	45	31	87·3	13·61	86·0	S.B.B.	·62790	8·1033	8·1035	−·0002	8·1034		
Oct.	4	12	7	2·8643	0·53	90·7	−0·4	15·11	86·1	17	11	40	8	44	31	89·7	14·95	86·8	S.	·62774	8·1152	8·1148	+·0004	8·1150		
,,	,,	15	1	2·8650	0·54	88·8	,,	14·19	87·6	17	12	12	8	44	47	89·8	14·50	87·1	S.	·62777	8·1096	8·1090	+·0006	8·1093		
,,	11	11	25	2·8659	0·52	91·5	−0·7	14·65	88·0	17	11	17	8	44	12	90·0	14·67	88·5	S B.B.	·62738	8·1126	8·1132	−·0006	8·1129		
,,	,,	15	1	2·8661	0·58	89·9	,,	14·00	89 3	17	11	47	8	44	27	90·5	14·24	89·4	S.B B.	·62748	8·1083	8·1087	−·0004	8·1085		
,,	18	12	2	2·8645	0·54	88·3	−1·0	15·04	85·9	17	10	57	8	44	12	90·7	14·86	86·7	S.	·62739	8·1145	8·1135	+·0010	8·1140	8·1119	3·7402
,,	,,	15	4	2·8655	0·58	88·7	,,	14·61	87·0	17	10	45	8	44	2	90·5	14·78	87·0	S.	·62722	8·1130	8·1126	+·0004	8·1128		
,,	25	11	44	2·8643	0·50	87·7	−0·5	15·04	86·5	17	12	2	8	44	43	87·9	14·94	86·7	S.B.B.	·62752	8·1130	8·1124	+·0006	8·1127		
,,	,,	15	11	2·8649	0·47	88·0	,,	14·20	87·5	17	12	27	8	44	56	87·4	14·45	87·4	S.B.B.	·62765	8·1105	8·1098	+·0007	8·1101		
Nov.	1	11	48	2·8647	0·54	90·8	−0·3	15·07	86·3	17	10	37	8	43	57	91·0	14·87	87·1	S.	·62739	8·1169	8·1169	·0000	8·1169		
,,	,,	14	36	2·8654	0·55	91·8	,,	14·26	88·8	17	10	51	8	44	6	92.0	14·46	88·1	S.	·62755	8·1141	8·1135	+·0006	8·1138		
,,	8	11	45	2·8638	0·50	86·5	−0·9	15·24	85·9	17	12	37	8	45	4	89·5	15·10	86·5	S.B.B.	·62787	8·1098	8·1087	+·0011	8·1092		
,,	,,	14	55	2·8649	0·53	89·5	,,	14·41	88·3	17	12	40	8	45	5	92·2	14·63	87·0	S.B.B.	·62806	8·1064	8·1055	+·0009	8·1059		
,,	15	11	50	2 8653	0·52	91·2	−0·6	15·02	86·0	17	10	45	8	44	6	91·2	14·84	86·5	S.	·62738	8·1150	8·1143	+·0007	8·1146	8·1108	3·7397
,,	,,	15	10	2·8655	0·52	87·0	,,	14·15	87·0	17	11	22	8	44	20	90·7	14·30	87·0	S.	·62729	8·1090	8·1087	+·0003	8·1088		
,,	22	11	53	2·8648	0·55	87·0	−0·6	15·07	84·0	17	12	9	8	44	47	88·6	14·77	84·7	S.B.B.	·62739	8·1100	8·1092	+·0008	8·1096		
,,	,,	14	42	2·8651	0·59	87·9	,,	14·07	86·7	17	12	15	8	44	53	89·6	14·37	86·0	S.B.B.	·62767	8·1083	8·1074	+·0009	8·1078		
,,	29	11	49	2·8635	0·47	84·5	−0·8	15·97	79·2	17	13	5	8	45	7	85·2	15·82	80·0	S B.B.	·62758	8·1111	8·1113	−·0002	8·1112		
,,	,,	14	57	2·8641	0·49	85·5	,,	15·03	83·1	17	12	58	8	45	10	85·5	15·27	82·5	S.B.B.	·62762	8·1104	8·1098	+·0006	8·1101		
Dec.	6	11	28	2·8637	0·57	84·2	0·0	15·60	81·0	17	12	6	8	44	47	85·3	15·57	81 3	S.B.B.	·62729	8·1137	8·1128	+·0009	8·1132		
,,	,,	15	2	2·8637	0·61	83·8	,,	14·87	84·0	17	12	37	8	45	4	86.3	15·02	83·4	S.B.B.	·62752	8·1105	8·1094	+·0011	8·1099		
,,	13	12	38	2·8651	0·59	83·0	−0·3	15·11	80·1	13	13	39	8	45	40	84·7	14·86	80·6	S.	·62726	8·1033	8·1016	+·0017	8·1024		
,,	,,	14	42	2·8660	0·57	84·2	,,	14·64	82·8	17	13	56	8	45	45	85·4	14·73	81·1	S.	·62726	8·1001	8·0988	+·0013	8·0994	8·1081	3·7385
,,	20	11	24	2·8643	0·48	83·6	−0·2	15.38	83·4	17	13	31	8	45	37	83·0	15·13	83·8	S.B.B.	·62738	8·1072	8·1066	+·0006	8·1069		
,,	,	14	50	2·8661	0·53	84·9	,,	14·55	85·0	17	14	5	8	45	45	83·1	14·53	84·5	S.B.B.	·62719	8·1020	8·1014	+·0006	8·1017		
,,	27	11	33	2·8625	0·51	84·7	−0·2	16·17	81·5	17	11	56	8	44	42	84·6	16·01	81·9	S.	·62744	8·1190	8·1180	+·0010	8·1185		
,,	,,	14	16	2·8639	0·53	83·2	,,	15·27	83·0	17	11	57	8	44	52	84·1	15·57	82·5	S.	·62721	8·1141	8·1119	+·0022	8·1130		

The mean value of the Horizontal Force for the year 1905 = 8·1113 3·7400

Absolute Magnetical Observations.—Table II.

Observations of Absolute Declination.

1905.

1905. Date.	Bombay Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Tárdeo Chimney.	Torsion. Mean.	Effect of 90°.	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11.	12	13
	h. m.	Sc.div.	Sc.div.	° ′ ″	° ′ ″	°			Sc. div.	° ′ ″	Sc. div.	° ′ ″
JAN. 5	11 25	+1·55	+1·30	16 47 10	196 58 0	0		S.B.B.	18·83	0 15 53		
„ 12	11 30	+1·54	+1·30	16 44 35	196 57 30	0		V.V.N.	18·57	0 13 48	18·64	0 14 39
„ 19	11 37	+1·55	+1·30	16 45 20	196 57 10	0		S.B.B.	18·59	0 14 53		
„ 26	12 47	+1·55	+1·14	16 44 40	196 57 30	0		V.V.N.	18·57	0 14 4		
FEB. 2	11 32	+1·54	+1·26	16 44 45	196 57 40	0		S.B.B.	18·56	0 13 50		
„ 9	11 7	+1·52	+1·07	16 47 30	196 57 50	0		V.V.N.	18·91	0 16 36	18·73	0 15 17
„ 16	11 44	+1·51	+1·10	16 45 50	196 57 50	0		V.V.N.	18·63	0 14 54		
„ 23	11 35	+1·55	+1·01	16 46 25	196 57 40	0		V.V.N.	18·82	0 15 48		
MARCH 2	11 49	+1·56	+1·20	16 44 40	196 57 35	0		S.B.B.	18·62	0 13 56		
„ 9	11 57	+1·50	+1·20	16 43 5	196 57 15	0		V.V.N.	18·39	0 12 37		
„ 16	12 2	+1·56	+1·26	16 43 20	196 57 0	0		S.B.B.	18·48	0 13 7	18·46	0 13 4
„ 23	11 51	+1·50	+1·20	16 43 10	196 57 25	0		V.V.N.	18·36	0 12 32		
„ 30	11 26	+1·55	+1·20	16 43 20	196 57 0	0		S.B.B.	18·43	0 13 9		
APRIL 6	12 4	+1·56	+1·21	16 43 0	196 57 0	0		S.B.B.	18·35	0 12 49		
„ 14	11 58	+1·52	+1·30	16 42 20	196 56 25	0		V.V.N.	18·37	0 12 36	18·36	0 12 39
„ 20	11 52	+1·51	+1·26	16 43 0	196 57 10	0		V.V.N.	18·35	0 12 33		
„ 27	11 24	+1·54	+1·24	16 42 50	196 57 0	0		S.B.B.	18·36	0 12 37		
MAY 4	12 10	+1·57	+1·14	16 41 30	196 56 40	0		V.V.N.	18·39	0 11 45		
„ 11	11 55	+1·55	+1·21	16 42 40	196 57 0	0		S.B.B.	18·44	0 12 29	18·44	0 12 39
„ 18	11 50	+1·52	+1·31	16 42 20	196 56 10	0		V.V.N.	18·40	0 12 50		
„ 25	10 56	+1·54	+1·29	16 43 20	196 56 30	0		S.B.B.	18·54	0 13 33		
JUNE 1	11 19	+1·52	+1·03	16 41 50	196 56 5	0		V.V.N.	18·43	0 12 48		
„ 8	11 16	+1·54	+1·37	16 43 10	196 55 40	0		S.B.B.	18·47	0 14 7		
„ 15	11 0	+1·54	+0·95	16 42 10	196 55 20	0		V.V.N.	18·51	0 13 56	18·36	0 12 34
„ 22	12 9	+1·55	+1·40	16 40 0	196 55 40	0		S.B.B.	18·12	0 10 56		
„ 29	12 11	+1·52	+1·27	16 40 0	196 55 42	0		V.V.N.	18·29	0 11 1		

1905. Date.	Bombay Civil Time.	Mean Reading. Collimator Magnet. Scale apparently. Erect.	Mean Reading. Collimator Magnet. Scale apparently. Inverted.	Mean Reading. Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Mean Reading. Horizontal Circle with Telescope pointed to. Tárdeo Chimney.	Torsion. Mean.	Torsion. Effect of 90°.	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Monthly Mean. Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc.div	Sc.div.	° ′ ″	° ′ ″	°			Sc. div.	° ′ ″	Sc. div.	° ′ ″
JULY 6	12 17	+1·50	+1·32	16 41 45	196 55 55	0		V.V.N.	18·29	0 12 28		
,, 13	11 1	+1·51	+1·20	16 42 0	196 56 15	0		V.V.N.	18·47	0 12 32	18·27	0 11 18
,, 20	11 42	+1·55	+1·30	16 39 40	196 56 20	0		S.B.B.	18·09	0 10 3		
,, 27	11 6	+1·55	+1·32	16 40 0	196 56 30	0		V.V.N.	18·24	0 10 11		
AUG. 4	11 22	+1·55	+1·34	16 42 20	196 56 40	0		S.B.B.	18·39	0 12 20		
,, 10	11 38	+1·52	+1·27	16 41 40	196 56 40	0		V.V.N.	18·29	0 11 43		
,, 17	11 8	+1·54	+1·31	16 40 0	196 56 40	0		S.B.B.	18·10	0 10 1	18·32	0 11 55
,, 25	10 55	+1·55	+1·24	16 43 0	196 56 30	0		V.V.N.	18·49	0 13 17		
,, 31	10 43	+1·55	+1·30	16 42 30	196 57 0	0		S.B.B.	18·35	0 12 13		
SEPT. 7	11 8	+1·52	+1·28	16 40 30	196 56 30	0		V.V.N.	18·09	0 10 43		
,, 14	10 42	+1·49	+1·40	16 40 10	196 56 30	0		V.V.N.	18·16	0 10 12	18·21	0 11 10
,, 22	11 24	+1·55	+1·29	16 41 20	196 56 20	0		S.	18·22	0 11 44		
,, 29	12 4	+1·55	+1·30	16 42 20	196 57 0	0		S.B.B.	18·36	0 12 3		
OCT. 5	11 9	+1·54	+1·31	16 40 30	196 56 50	0		S.	18·10	0 10 21		
,, 12	11 4	+1·55	+1·39	16 42 40	196 57 0	0		S.B.B.	18·36	0 12 17	18·34	0 12 15
,, 19	11 9	+1·55	+1·22	16 43 20	196 56 40	0		S.	18·47	0 13 28		
,, 26	10 49	+1·55	+1·27	16 42 50	196 56 40	0		S.	18·43	0 12 55		
NOV. 2	11 38	+1·55	+1·31	16 41 30	196 56 30	0		S.	18·28	0 11 43		
,, 10	11 23	+1·54	+1·29	16 42 50	196 56 20	0		S.B.B.	18·50	0 13 13		
,, 16	11 14	+1·52	+1·29	16 42 10	196 56 20	0		S.	18·39	0 12 31	18·44	0 12 53
,, 23	11 9	+1·55	+1·31	16 45 0	196 57 0	0		S.B.B.	18·70	0 14 43		
,, 30	11 48	+1·54	+1·26	16 42 30	196 57 0	0		S.B.B.	18·33	0 12 15		
DEC. 7	11 16	+1·55	+1·21	16 43 30	196 57 0	0		S.B.B.	18·41	0 13 19		
,, 14	11 9	+1·52	+1·31	16 44 30	196 57 25	0		S.	18·53	0 13 45	18·53	0 13 55
,, 21	11 49	+1·54	+1·26	16 44 50	196 57 20	0		S.B.B.	18·58	0 14 15		
,, 28	11 5	+1·52	+1·30	16 45 0	196 57 20	0		S.	18·60	0 14 21		

The Mean Declination for the year 1905 = 0° 12′ 51″

Absolute Magnetical Observations.—Table III.

OBSERVATIONS OF INCLINATION, 1905.

Taken with Barrow's Dip Circle, with Microscopes, No. 49, and two 3½-inch Needles, Nos. 1 and 2, by Dover, Charlton.

1905. Date.	Bombay Civil Time (0 to 24 hours.) At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 3	11 35	12 39	S.B.B.	2	22 55·5	21 44·1	22 5·7	20 49·5	21 53·7		
„ 6	14 32	15 35	S.B.B.	1	23 27·5	22 12·1	21 43·2	20 33·2	21 59·0	No. 2	
„ 10	10 56	12 2	V.V.N	1	23 17·5	22 10·0	21 42·7	20 23·0	21 53·3	° ′	
„ 14	10 47	12 0	V.V.N.	2	22 52·0	21 40·5	22 1·4	20 51·0	21 51·2	21 52·3	
„ 17	11 32	12 35	S.B.B.	2	22 55·4	21 39·1	22 3·0	20 50·6	21 52·0		21 53·5
„ 20	14 20	15 23	S.B.B.	1	23 18·4	22 8·4	21 41·2	20 24·1	21 53·0	No. 1	
„ 24	10 53	11 58	V.V.N.	1	23 19·7	22 3·0	21 46·5	20 28·7	21 54·5	° ′	
„ 27	14 50	15 55	V.V.N.	2	22 56·0	21 40·0	22 6·0	20 48·0	21 52·5	21 54·9	
„ 31	11 37	12 42	S.B.B.	2	22 57·9	21 37·2	22 4·4	20 49·4	21 52·2		
FEB. 4	11 47	12 50	S.B.B.	1	23 23·5	22 12·0	21 40·6	20 33·1	21 57·3		
„ 7	12 10	13 15	V.V.N.	1	23 17·5	23 4·5	21 46·5	20 31·0	21 54·9	No. 2	
„ 10	15 5	16 15	V.V.N.	2	22 55·0	21 44·7	22 2·0	20 57·0	21 54·7	° ′	
„ 14	11 13	12 26	S.B.B	2	22 57·0	21 42·2	22 9·4	20 51·9	21 55·1	21 55·0	
„ 17	14 55	16 5	V.V.N.	1	23 17·5	22 11·5	21 37·2	20 33·7	21 55·0		21 55·3
„ 21	12 37	13 37	V.V N.	1	23 18·0	22 10·0	21 44·5	20 29·7	21 55·5	No. 1	
„ 24	14 57	16 4	V.V.N.	2	22 57·2	21 36·0	22 12·5	20 49·0	21 53·7	° ′	
„ 28	11 48	12 54	S.B.B.	2	23 0·5	21 42·9	22 10·5	20 52·5	21 56·6	21 55·7	
MARCH 3	14 35	15 39	S.B.B.	1	23 20·2	22 9·4	21 39·2	20 35·4	21 56·0		
„ 7	11 10	12 3	V.V N	1	23 17·2	22 11·7	21 43·5	20 32·7	21 56·3	No. 2	
„ 10	14 50	15 50	V.V.N	2	22 58·5	21 46·0	22 10·2	20 50·5	21 56·3	° ′	
„ 14	11 44	12 48	S.B.B.	2	22 56·5	21 43·5	22 10·6	20 50·5	21 55·3	21 54·3	
„ 18	11 17	12 28	S.B.B.	1	23 19·4	22 10·7	21 44·2	20 29·4	21 55·9		21 55·0
„ 21	10 33	11 27	V.V.N.	1	23 16·5	22 2·6	21 46·0	20 27·7	21 53·2	No. 1	
„ 24	13 45	14 53	S.B.B.	2	23 0·0	21 37·5	22 2·7	20 52·4	21 53·1	° ′	
„ 28	11 45	12 50	S.B.B.	2	22 56·0	21 40·0	22 4·5	20 50·0	21 52·6	21 55·5	
„ 31	14 25	15 30	S.B.B.	1	23 16·6	22 13·1	21 42·0	20 32·5	21 56·0		
APRIL 4	11 3	12 13	V.V.N.	1	23 16·9	22 7·7	21 41·0	20 30·5	21 54·0		
„ 7	14 40	15 50	V.V.N.	2	22 56·0	21 46·2	22 4·2	20 56·2	21 55·6	No. 2	
„ 11	11 39	12 44	S.B.B.	2	22 54·0	21 39·0	22 5·0	20 49·0	21 52·0	° ′	
„ 14	14 51	15 55	V.V.N.	1	23 17·5	22 11·5	21 40·7	20 36·0	21 56·4	21 53·0	
„ 18	11 10	12 17	V.V.N.	1	23 13·7	22 13·0	21 37·0	20 39·5	21 55·8		21 54·0
„ 20	14 46	15 53	V.V.N.	2	22 54·5	22 44·2	21 58·5	20 54·0	21 52·8	No. 1	
„ 25	11 37	12 45	S.B.B.	2	22 56·7	21 37·1	22 3·5	20 48·7	21 51·5	° ′	
„ 28	14 55	15 59	S.B.B.	1	23 17·7	22 4·0	21 46·0	20 28·2	21 54·0	21 55·0	

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 2	10 55	11 53	V.V.N.	1	23 15·5	22 7·0	21 40·2	20 26·0	21 52·2		
,, 5	15 1	16 14	V.V.N.	2	23 0·0	21 38·0	22 30·2	20 42·7	21 57·7	No. 2	
,, 9	11 2	12 15	S.B.B.	2	22 56·1	21 37·0	22 3·7	20 48·7	21 51·1	° ′	
,, 12	14 47	15 59	S.B.B.	1	23 21·2	22 0·2	21 45·5	20 29·0	21 54·0	21 54·3	
,, 16	11 0	12 0	V.V.N.	1	23 8·7	22 7·2	21 46·7	20 34·7	21 54·3		21 54·8
,, 19	14 50	15 45	V.V.N.	2	22 54·5	21 45·0	22 8·5	20 59·5	21 56·9	No. 1	
,, 23	11 40	12 45	S.B.B.	2	22 54·5	21 38·6	22 4·0	20 48·7	21 51·4	° ′	
,, 26	14 33	15 38	S.B.B.	1	23 14·7	22 15·7	21 39·5	20 39·2	21 57·3	21 55·2	
,, 30	11 2	12 16	V.V.N.	1	23 11·2	22 12·5	21 48·2	20 41·0	21 58·2		
JUNE 2	14 52	15 43	V.V.N.	2	22 49·7	21 41·2	22 4·2	21 4·2	21 54·8		
,, 6	11 46	12 50	S.B.B.	2	23 8·2	21 55·0	21 49·2	20 46·4	21 54·7	No. 2	
,, 9	14 33	15 41	S.B.B.	1	23 11·2	22 12·1	21 47·2	20 31·0	21 55·4	° ′	
,, 13	11 0	12 16	V.V.N.	1	23 16·0	22 14·5	21 44·5	20 36·0	21 57·7	21 55·4	
,, 16	14 53	15 55	V.V.N.	2	23 0·0	21 38·0	22 15·7	20 53·0	21 56·7		21 56·2
,, 20	11 33	12 41	S.B.B.	2	23 9·2	21 55·0	21 49·7	20 44·5	21 54·6	No. 1	
,, 23	14 25	15 30	S.B.B.	1	23 28·7	22 11·2	21 46·7	20 33·2	21 59·9	° ′	
,, 27	10 54	12 0	V.V.N.	1	23 17·0	22 13·7	21 37·5	20 36·2	21 56·1	21 57·3	
,, 30	14 51	15 53	V.V.N.	2	22 48·7	21 43·7	22 9·7	21 2·0	21 56·0		
JULY 4	12 5	13 4	S.B.B.	2	22 55·7	22 3·5	21 57·7	20 52·5	21 57·3		
,, 7	14 51	15 45	V.V.N.	1	23 16·7	22 12·0	21 48·2	20 37·0	21 58·5	No. 2	
,, 11	10 55	11 59	V.V.N.	1	23 18·5	22 10·2	21 48·0	20 28·2	21 56·2	° ′	
,, 14	14 53	16 5	V.V.N.	2	22 56·2	21 44·5	22 5·0	21 17·5	22 0·8	21 59·5	
,, 18	10 52	12 0	S.B.B.	2	22 59·5	21 51·0	22 7·0	21 6·2	22 0·9		21 59·5
,, 21	14 40	15 47	S.B.B.	1	23 21·7	22 23·2	21 50·2	20 40·0	22 3·8	No. 1	
,, 25	12 30	13 35	V.V.N.	1	23 17·5	22 15·0	21 48·7	20 38·0	21 59·8	° ′	
,, 28	14 55	15 45	V.V.N.	2	22 58·5	21 47·5	22 10·0	21 0·0	21 59·0	21 59·6	
AUG. 1	11 7	12 8	V.V.N.	2	22 45·5	21 49·5	22 2·5	21 4·5	21 55·5		
,, 4	14 45	15 42	S.B.B.	1	23 18·2	22 26·7	21 42·2	20 37·2	22 1·1	No. 2	
,, 8	10 58	12 3	S.B.B.	1	23 18·0	22 30·0	21 39·0	20 36·2	22 0·8	° ′	
,, 11	14 44	15 41	V.V.N.	2	22 53·5	21 49·7	22 9·0	21 6·7	21 59·7	21 58·4	
,, 15	11 5	12 18	S.B.B.	2	22 48·7	21 48·7	22 15·0	21 2·0	21 58·6		21 59·3
,, 18	14 29	15 45	S.B.B.	1	23 14·7	22 25·9	21 39·5	20 39·9	22 0·0	No. 1	
,, 22	11 11	12 14	V.V.N.	1	23 13·2	22 16·7	21 49·7	20 39·7	21 59·8	° ′	
,, 25	14 57	16 7	V.V.N.	2	22 53·7	21 49·0	22 9·7	21 3·7	21 59·0	22 0·4	
,, 29	11 0	12 5	S.B.B.	2	22 54·0	21 46·0	22 21·0	20 55·6	21 59·1		

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
Sept. 1	14 48	15 45	V.V.N.	1	23 14·7	22 19·7	21 52·5	20 46·2	22 3·3		
„ 5	10 44	11 45	V.V.N.	1	23 9·7	22 13·0	21 43·5	20 40·5	21 56·7	No. 2	
„ 8	14 56	15 52	V.V.N.	2	22 52·0	21 51·7	22 8·2	21 7·2	21 59·8	° ′	
„ 12	11 25	12 29	S.B.B.	2	22 51·2	21 48·1	22 13·2	21 2·2	21 58·7	22 0·9	
„ 15	14 50	16 0	S.B.B.	1	23 12·7	22 20·0	21 49·5	20 45·4	22 1·9		22 0·5
„ 20	11 47	12 54	S.	1	23 17·5	22 20·0	21 41·2	20 41·0	21 59·9	No. 1	
„ 22	14 9	15 17	S.	2	23 0·9	21 51·7	22 14·0	21 6·0	22 3·1	° ′	
„ 26	11 10	12 21	S.B.B.	2	22 53·0	21 45·2	22 21·2	20 54·0	21 58·3	22 0·0	
„ 29	14 5	15 22	S.B.B.	1	23 17·7	22 16·2	21 50·2	20 47·5	22 2·9		
Oct. 3	11 27	12 40	S.	1	23 14·9	22 15·1	21 42·0	20 37·9	21 57·5		
„ 6	14 22	15 28	S.	2	22 57·0	21 49·2	22 20·1	21 3·6	22 2·5	No. 2	
„ 10	11 8	12 20	S.B.B.	2	22 50·6	21 47·1	22 11·5	21 2·1	21 57·8	° ′	
„ 13	14 38	15 54	S.B.B.	1	23 14·0	22 18·1	21 48·6	20 39·5	22 0·0	21 59·5	
„ 17	11 18	12 27	S.	1	23 14·2	22 16·5	21 45·6	20 40·2	21 59·1		21 59·3
„ 20	14 17	15 39	S.	2	22 53·2	21 50·6	22 17·0	21 2·2	22 0·7	No. 1	
„ 24	10 58	12 5	S.B.B.	2	22 45·7	22 2·7	22 4·7	20 55·7	21 57·2	° ′	
„ 27	13 44	14 47	S.B.B.	1	23 16·0	22 17·9	21 44·5	20 41·6	22 0·0	21 59·1	
„ 31	11 54	13 0	S.	1	23 12·7	22 19·5	21 44·0	20 39·7	21 59·0		
Nov. 3	13 55	15 0	S.	2	22 50·7	22 5·6	22 10·6	20 56·7	22 0·9		
„ 7	11 15	12 20	S.B.B.	2	22 50·2	21 58·5	22 9·2	21 1·9	21 59·9	No. 2	
„ 10	14 33	15 38	S.B.B.	1	23 14·5	22 11·5	21 42·2	20 43·4	21 57·9	° ′	
„ 14	11 26	12 36	S.	1	23 17·2	22 13·4	21 45·5	20 42·7	21 59·7	22 0·6	
„ 17	14 4	15 16	S.	2	23 0·1	21 46·6	22 22·2	20 59·4	22 2·1		21 59·9
„ 21	11 9	12 14	S.B.B.	2	22 52·5	21 48·0	22 23·0	20 54·0	21 59·4	No. 1	
„ 24	14 35	15 45	S.B.B.	1	23 20·2	22 12·9	21 41·4	20 48·2	22 0·7	° ′	
„ 28	11 33	12 37	S.B.B.	1	23 20·2	22 17·2	21 45·2	20 30·5	21 58·3	21 59·1	
Dec. 1	14 39	15 45	S.B.B.	2	22 54·7	21 51·2	22 18·7	21 2·0	22 1·4		
„ 5	11 0	12 5	S.B.B.	2	22 50·0	21 54·7	22 11·5	21 6·9	22 0·8	No. 2	
„ 8	14 50	15 58	S.B.B.	1	23 24·2	22 18·1	21 42·6	20 32·7	21 59·4	° ′	
„ 12	12 51	14 0	S.	1	23 19·7	22 18·2	21 39·9	20 45·6	22 0·8	22 1·0	
„ 15	14 26	15 39	S.	2	22 55·7	21 51·7	22 18·9	21 3·4	22 2·4		22 1·0
„ 19	11 0	12 5	S.B.B.	2	22 59·7	21 53·6	22 9·9	20 52·9	21 59·0	No. 1	
„ 22	15 2	16 5	S.B.B.	1	23 23·2	22 27·2	21 48·1	20 29·4	22 2·0	° ′	
„ 26	12 29	13 40	N.	1	23 19·5	22 23·9	21 46·0	20 36·7	22 1·5	22 0·9	
„ 29	13 55	14 58	S.	2	23 1·2	21 51·4	22 14·5	20 59·4	22 1·6		

The Mean Dip for the year ... { With Needle No. 1 = 21 57·7 ° ′ ; With Needle No. 2 = 21 57·0 }

The Mean Dip for the year 1905 = 21 57·4 ° ′

Absolute Magnetical Observations—Table III-*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1905.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and four 3½-inch Needles by Dover, viz:— Nos. 1 and 2 from 3rd January to 25th July and Nos. 3 and 4 from 28th July to 29th December.

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 3	11 0	13 12	S.B.B.	2	22 27·0	20 35·6	22 57·0	21 26·7	21 51·6		
„ 6	14 0	16 7	S.B.B.	1	22 38·9	20 59·6	22 55·1	21 8·7	21 55·6	No. 1	
„ 10	10 20	12 30	V.V.N.	1	22 34·5	20 56·2	22 57·2	20 57·2	21 51·3	21 52·1	
„ 14	10 22	12 40	V.V.N.	2	22 22·7	20 40·0	23 0·7	21 18·2	21 50·4		
„ 17	11 0	13 7	S.B.B.	2	22 21·4	20 41·7	22 59·0	21 19·2	21 50·3		21 51·4
„ 20	13 45	15 58	S.B.B.	1	22 29·2	20 59·5	22 57·7	20 56·6	21 50·7		
„ 24	10 26	12 47	V.V.N.	1	22 38·9	20 47·0	22 54·5	21 3·0	21 50·9	No. 2	
„ 27	14 22	16 25	V.V.N.	2	22 24·2	20 37·2	23 4·4	21 18·2	21 51·0	21 50·8	
„ 31	11 5	13 13	S.B.B.	2	22 23·9	20 37·1	23 3·9	21 17·5	21 50·6		
FEB. 4	11 15	13 22	S.B.B.	1	22 42·2	20 55·4	22 52·7	21 7·2	21 54·4		
„ 7	10 50	13 50	V.V.N.	1	22 40·0	20 53·5	22 58·7	20 51·2	21 56·8	No. 1	
„ 10	14 20	16 45	V.V.N.	2	22 17·5	20 37·7	23 1·7	21 24·5	21 50·3	21 53·1	
„ 14	10 40	13 0	S.B.B.	2	22 16·4	20 38·6	23 4·0	21 28·2	21 51·8		21 52·3
„ 17	14 15	16 31	V.V.N.	1	22 37·5	21 1·7	23 2·2	20 56·7	21 54·5		
„ 21	12 0	14 15	V.V.N.	1	22 37·7	20 54·7	22 53·7	21 5·5	21 52·9	No. 2	
„ 24	14 22	16 30	V.V.N.	2	22 21·2	20 39·0	23 6·1	21 18·2	21 51·1	21 51·5	
„ 28	11 10	13 29	S.B.B.	2	22 20·0	20 40·5	23 3·2	21 27·9	21 52·9		
MAR. 3	14 0	16 19	S.B.B.	1	22 38·4	21 2·6	23 3·0	20 55·2	21 54·8		
„ 7	10 25	12 25	V.V.N.	1	22 37·7	20 55·2	22 58·0	21 5·2	21 54·0	No. 1	
„ 10	14 20	16 22	V.V.N.	2	22 22·7	20 41·2	23 6·2	21 15·2	21 51·3	21 53·4	
„ 14	11 10	13 20	S.B.B.	2	22 17·1	20 40·0	23 6·1	21 29·0	21 53·0		
„ 18	10 45	13 2	S.B.B.	1	22 38·1	20 56·2	22 53·5	21 5·0	21 53·2		21 52·6
„ 21	10 5	12 1	V.V.N.	1	22 43·2	20 49·2	23 0·5	20 55·7	21 52·1		
„ 24	13 10	15 35	S.B.B.	2	22 22·2	20 40·6	23 4·5	21 18·2	21 51·1	No. 2	
„ 28	11 10	13 25	S.B.B.	2	22 22·0	20 41·9	23 0·0	21 19·2	21 50·8	21 51·5	
„ 31	13 50	16 2	S.B.B.	1	22 37·4	20 56·0	22 52·2	21 6·9	21 53·1		
APR. 4	10 18	12 43	V.V.N.	1	22 49·7	20 58·2	22 55·5	21 5·4	21 57·2		
„ 7	14 14	16 22	V.V.N.	2	22 25·0	20 40·2	23 7·2	21 22·7	21 53·8	No. 1	
„ 11	11 5	13 17	S.B.B.	2	22 22·7	20 41·9	22 59·7	21 17·5	21 50·4	21 55·6	
„ 14	14 17	16 26	V.V.N.	1	22 44·0	21 2·9	23 1·2	21 8·0	21 58·8		21 54·0
„ 18	10 27	12 47	V.V.N.	1	22 31·0	21 6·0	22 44·2	21 12·2	21 53·3		
„ 20	14 14	16 30	V.V.N.	2	22 21·2	20 45·5	22 54·9	21 42·2	21 55·9	No. 2	
„ 25	11 5	13 17	S.B.B.	2	22 22·7	20 35·5	23 2·5	21 16·5	21 49·3	21 52·3	
„ 28	14 22	16 32	S.B.B.	1	22 47·5	20 47·2	23 0·0	20 57·2	21 53·0		

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.		At conclusion.		Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h.	m.	h.	m.			° ′	° ′	° ′	° ′	° ′		° ′
MAY 2	10	17	12	22	V.V.N.	1	22 31·5	21 3·5	22 54·0	21 1·0	21 52·5		
„ 5	14	18	16	36	V.V.N.	2	22 22·7	20 43·0	23 12·0	21 15·7	21 53·3	No 1	
„ 9	10	24	12	55	S.B.B.	2	22 22·7	20 34·1	23 2·5	21 16·0	21 4 88	21 53·9	
„ 12	14	12	16	31	S.B.B.	1	22 37·0	20 45·2	22 54·0	21 3·0	21 49·8		
„ 16	10	13	12	31	V.V.N.	1	22 29·5	21 10·7	22 51·5	21 10·5	21 55·5		21 52.4
„ 19	14	19	16	8	V.V.N.	2	22 25·5	20 29·0	23 0·2	21 26·0	21 50·2		
„ 23	11	5	13	18	S.B.B.	2	22 27·2	20 36·1	22 59·0	21 17·0	21 49·8	No. 2	
„ 26	14	0	16	15	S.B.B.	1	22 36·5	20 57·7	22 53·2	21 8·0	21 53·8	21 50·5	
„ 30	10	20	12	40	V.V.N.	1	22 39·7	21 1·5	23 1·0	21 8·7	21 57·7		
JUNE 2	14	20	16	5	V.V.N.	2	22 24·2	20 36·7	22 55·5	21 37·5	21 53·5		
„ 6	11	8	13	23	S.B.B.	2	22 20·5	20 36·2	22 53·1	21 39·5	21 52·3	No 1	
„ 9	14	0	16	15	S.B.B.	1	22 38·7	20 50·7	22 54·0	21 6·0	21 52·3	21 55·3	
„ 13	10	20	12	40	V.V.N.	1	22 32·0	21 7·5	22 59·5	21 8·2	21 56·8		
„ 16	14	20	16	22	V.V.N.	2	22 28·5	20 43·2	23 4·0	21 28·7	21 56·1		21 54·3
„ 20	11	0	13	14	S.B.B.	2	22 23·0	20 37·2	22 53·2	21 40·0	21 53·3		
„ 23	13	45	16	15	S.B.B.	1	22 30·0	21 8·6	23 5·5	21 12·2	21 59·1	No. 2	
„ 27	10	25	12	27	V.V.N.	1	22 33·2	20 59·0	22 53·2	21 6·2	21 52·9	21 53·5	
„ 30	14	20	16	25	V.V.N.	2	22 17·5	20 43·2	23 0·2	21 28·2	21 52·3		
JULY 4	11	30	13	32	S.B.B.	2	22 16·7	20 49·6	22 51·7	21 38·2	21 54·0		
„ 7	14	17	16	20	V.V.V.	1	22 32·0	21 4·0	22 56·2	21 14·5	21 56·7	No. 1	
„ 11	10	16	12	16	V.V.N.	1	22 37·5	21 3·7	22 55·0	21 10·0	21 56·5	21 57·1	
„ 14	14	18	16	33	V.V.N.	2	22 22·7	20 49·5	23 1·0	21 29·2	21 55·6	No. 2	21 57·2
„ 18	10	20	12	45	S.B.B.	2	22 8·7	20 56·7	23 7·0	21 37·4	21 57·4	21 55·7	
„ 21	11	15	12	17	S.B.B.	1	22 37·2	21 1·6	23 10·0	21 0·0	21 57·2	No. 3	
„ 25	16	8	17	0	V.V.N.	1	22 34·7	21 11·0	22 52·7	21 13·7	21 58·0	22 2·1	
„ 28	14	17	16	30	V.V.N.	3	22 36·2	21 18·7	22 54·2	21 19·5	22 2·1		
AUG. 1	10	30	12	35	V.V.N.	3	22 30·5	21 7·2	22 48·7	21 15·0	21 55·3		
„ 4	14	15	16	19	S.B.B.	4	23 14·7	21 10·4	22 40·5	21 3·0	22 2·1	No. 3	
„ 8	10	23	12	37	S.B.B.	4	23 16·5	21 9·4	22 36·5	21 3·5	22 1·5	21 59·1	
„ 11	14	15	16	11	V.V.N.	3	22 36·0	21 14·5	22 58·0	21 18·5	22 1·7		
„ 15	10	27	12	56	S.B.B.	3	22 43·0	21 10·7	22 54·2	21 14·9	22 0·7		21 59·5
„ 18	13	50	16	25	S.B.B.	4	23 10·0	21 14·7	22 34·7	21 5·0	22 1·1		
„ 22	10	30	12	46	V.V.N.	4	23 7·5	20 53·5	22 59·0	20 41·0	21 55·2	No. 4	
„ 25	14	21	16	35	V.V.N.	3	22 40·0	21 3·0	22 53·0	21 18·7	21 58·7	22 0·0	
„ 29	10	20	12	40	S.B.B.	3	22 45·4	20 58·4	22 55·7	21 16·4	21 59·0		

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	Bombay Civil Time (0 to 24 hours). At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	End of Needle Dipping. A. Face of Circle. West.	End of Needle Dipping. B. Face of Circle. East.	End of Needle Dipping. B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
SEP. 1	14 16	16 12	V.V.N.	4	23 19·2	20 57·7	23 5·5	20 52·5	22 3·7		
„ 5	10 16	12 15	V.V.N.	4	23 14·2	20 45·7	22 54·7	20 49·1	21 55·9	No. 3	
„ 8	14 19	16 33	V.V.N.	3	22 45·0	21 2·5	22 52·2	21 21·0	22 0·2	22 0·4	
„ 12	10 45	13 5	S.B.B.	3	22 42·5	21 1·2	22 54·2	21 19·1	21 59·2		
„ 15	14 15	16 40	S.B.B.	4	23 17·7	20 57·6	23 4·5	20 51·2	22 2·7		22 1·2
„ 20	11 10	13 41	S.	4	23 19·5	21 5·7	22 56·2	20 51·0	22 3·1		
„ 22	13 30	15 53	S.	3	22 54·4	21 9·4	22 50·2	21 14·9	22 2·2	No. 4	
„ 26	10 35	12 55	S.B.B.	3	22 53·0	20 55·6	22 56·7	21 15·2	22 0·1	22 1·8	
„ 29	13 25	16 10	S.B.B.	4	23 16·2	21 1·4	23 5·0	20 50·9	22 3·4		
OCT. 3	10 50	13 13	S.	4	23 1·2	20 57·5	23 4·0	20 49·0	21 57·9		
„ 6	13 48	16 2	S.	3	22 42·6	21 11·6	22 54·0	21 17·1	22 1·3	No. 3	
„ 10	10 30	12 55	S.B.B.	3	22 40·0	20 58·1	22 55·5	21 18·2	21 57·9	22 0·0	
„ 13	14 5	16 29	S.B.B.	4	23 16·2	21 4·5	22 57·0	20 53·2	22 2·7		
„ 17	10 43	13 5	S.	4	22 57·2	21 5·1	23 5·2	20 53·0	22 0·1		22 0·0
„ 20	13 40	16 3	S.	3	22 42·2	21 9·1	22 54·1	21 16·9	22 0·6		
„ 24	10 24	12 45	S.B.B.	3	22 32·2	21 17·9	22 48·5	21 21·4	22 0·0	No. 4	
„ 27	13 10	15 27	S.B.B.	4	22 59·6	21 5·4	23 3·7	20 53·2	22 0·5	22 0·0	
„ 31	11 22	13 39	S.	4	22 55·7	21 2·4	23 4·4	20 52·4	21 58·7		
NOV. 3	13 21	15 38	S.	3	22 31·4	21 17·5	22 55·9	21 21·1	22 1·5		
„ 7	10 35	12 55	S.B.B.	3	22 42·2	20 56·2	22 59·7	21 22·9	22 0·2	No. 3	
„ 10	14 0	16 18	S.B.B.	4	23 17·2	20 48·2	22 55·7	20 50·2	21 57·8	22 0·7	
„ 14	10 50	13 12	S.	4	23 10·6	21 15·9	22 45·2	20 51·5	22 0·8		
„ 17	13 30	15 50	S.	3	22 36·7	21 6·2	23 5·5	21 19·6	22 2·0		22 0·1
„ 21	10 35	12 49	S.B.B.	3	22 44·7	20 59·0	22 55·9	21 16·9	21 59·1		
„ 24	14 0	16 20	S.B.B.	4	23 15·2	21 12·7	22 44·1	20 51·0	22 0·7	No. 4	
„ 28	11 0	13 10	S.B.B.	4	23 8·2	21 18·6	22 39·5	20 49·6	21 59·0	21 59·6	
DEC. 1	14 12	16 20	S.B.B.	3	22 41·4	21 12·5	22 52·1	21 19·0	22 1·2		
„ 5	10 25	12 42	S.B.B.	3	22 47·4	21 2·1	22 53·7	21 20·5	22 0·9		
„ 8	14 15	16 30	S.B.B.	4	23 9·4	21 21·4	22 37·2	20 53·2	22 0·3	No. 3	
„ 12	12 19	14 36	S.	4	23 10·5	21 18·5	22 42·4	20 51·6	22 0·7	22 1·9	
„ 15	13 50	16 20	S.	3	22 39·7	21 9·9	22 58·4	21 23·7	22 2·9		
„ 19	10 25	12 42	S.B.B.	3	22 49·7	21 0·9	23 1·2	21 15·6	22 1·8		22 1·9
„ 22	14 30	16 37	S.B.B.	4	22 53·7	21 12·9	23 3·6	20 59·0	22 2·3	No. 4	
„ 26	11 50	14 17	N.	4	22 51·6	21 6·1	23 5·6	21 13·0	22 4·1	22 1·8	
„ 29	13 23	15 35	S.	3	22 38·9	21 12·0	22 55·9	21 23·6	22 2·6		

The Mean Dip for the year 1905 = 21 56·4

Note.—The yearly means have been calculated from all the available observations during the year and are not comparable.

Absolute Magnetical Observations—Table III *b*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1905.

Taken with New (Dover Charlton's) Dip Circle, with Microscopes, No. 110 and four 3½-inch Needles, by Dover viz :—

Nos. 1 and 2 from 16th January to 1st July and Nos. 3 and 4 from 31st July to 18th December.

1905. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′	° ′
JAN. 16	11 28	12 30	S.B.B.	1	21 50·5	21 26·2	22 8·9	21 46·4	21 48·0	21 49·1
„ „	12 36	13 36	S.B.B.	2	21 45·9	21 18·2	22 20·1	21 56·5	21 50·2	
FEB. 18	10 25	11 33	V.V.N.	1	22 7·0	21 16·5	22 20·5	21 36·7	21 50·2	21 51·0
„ „	11 47	13 0	V.V.N.	2	21 55·5	21 11·9	22 29·5	21 50·6	21 51·9	
MARCH 27	12 50	13 50	S.B.B.	1	21 57·2	21 22·2	22 20·9	21 49·1	21 52·3	21 52.0
„ „	14 0	15 0	S.B.B.	2	21 47·5	21 18·8	22 19·3	22 1·2	21 51·7	
APRIL 29	10 35	11 58	V.V.N.	1	21 56·5	21 24·2	22 22·5	21 43·5	21 51.7	21 49·5
„ „	12 16	13 52	V.V.V.	2	21 46·2	21 11·0	22 25·5	21 46·6	21 47·3	
MAY 27	11 0	12 5	S.B.B.	1	21 57·9	21 23·4	22 17·6	21 48·3	21 51·8	21 51·3
„ „	12 20	13 30	S.B.B.	2	21 43·6	21 20·3	22 21·3	21 58·6	21 50·9	
JULY 1	10 45	11 51	V.V.N.	1	22 6·6	21 17·1	22 22·6	21 46·0	21 53·1	21 56·4
„ „	12 0	13 0	V.V.N.	2	21 41·6	21 20·2	22 23·1	21 59·6	21 51·1	
„ 31	10 35	11 36	S.B.B.	3	22 1·0	21 8·3	22 33·0	22 15·5	21 59·5	
„ „	11 50	12 50	S.B.B.	4	22 34·5	22 2·0	22 3·6	21 27·1	22 1·8	
AUG. 28	10 17	11 41	V.V.N.	3	21 55·6	21 27·6	22 35·5	21 49·7	21 57·1	21 56·5
„ „	11 46	12 41	V.V.N.	4	22 23·1	21 41·0	22 11·1	21 29·9	21 56·0	
SEPT. 25	10 27	11 31	S.B.B.	3	21 55·6	21 25·1	22 30·6	21 48.1	21 54·8	21 55·6
„ „	11 40	12 44	S.B.B.	4	22 20·4	21 44·1	22 15·6	21 25·7	21 56·5	
OCT. 23	11 20	12 27	S.	3	21 56·7	21 23·8	22 37·1	21 52·0	21 57·4	21 58·2
„ „	12 35	13 39	S.	4	22 23·3	21 49·1	22 15.2	21 28·2	21 59·0	
NOV. 20	10 48	11 52	S.B.B.	3	22 0·5	21 20·8	22 36·0	21 54·9	21 58·0	21 59·0
„ „	12 0	13 0	S.B.B.	4	22 27·9	21 46·6	22 17·2	21 28·9	22 0·1	
DEC. 18	11 55	13 2	S.	3	22 1·6	21 24·6	22 34·7	21 54·6	21 58·9	21 59·6
„ „	13 10	14 20	S.	4	22 26·2	21 46·8	22 16·5	21 31·9	22 0·3	

The Mean Dip for the year 1905 = ° ′ 21 54·4

Note.—The yearly means have been calculated from all available observations during the year and are not comparable.

Absolute Magnetical Observations—Table I.

Observations of Vibration and Deflection, taken with the Kew Unifilar Magnetometer (No. 23, by Elliott Brothers) for the determination of Absolute Horizontal Force.

1906.

1906. Date.	Civil Time Mean.	Magnet N. 23 *a*. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Angle of Deflection of Magnet N. 23 *c* by N. 23 *a* at Distance. 0·8 foot	1·0 feet.	Temperature.	Corresponding Mean Reading of L. H. F. Magnetometer. Scale Reading.	Thermometer.	Observer.	Calculated Results in English Units. Values of m.	Values of X. From Deflections at distance. 0·8 foot ($X_{0\cdot8}$)	1·0 foot ($X_{1\cdot0}$)	Difference. $X_{0\cdot8} - X_{1\cdot0}$	Mean. $\frac{X_{0\cdot8} + X_{1\cdot0}}{2}$	Monthly Mean Values of X.	Monthly Mean Values of X in Metrical Units.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	S.	Sc. div.	°	S.		°	° ′ ″	° ′ ″	°		°								
JANUARY 3	12 4	2·8608	0·38	77·8	−0·4	16·30	77·0	17 15 5	8 46 22	77·8	16·34	77·4	S.B.B.	·62796	8·1124	8·1107	+·0017	8·1115		
,, ,,	15 14	2·8625	0·42	79·7	,,	16·18	78·1	17 14 47	8 46 8	78·4	16·40	77·9	S.B.B.	·62767	8·1096	8·1087	+·0009	8·1091		
,, 10	11 51	2·8612	0·42	79·3	−0·3	16·58	77·0	17 13 20	8 45 25	80·5	16·58	77·4	S	·62760	8·1165	8·1156	+·0009	8·1160		
,, ,,	14 51	2·8627	0·47	82·0	,,	16·09	78·6	17 12 52	8 45 2	81·9	16·30	78·0	S.	·62738	8·1150	8·1152	−·0002	8·1151		
,, 17	11 40	2·8625	0·46	84·9	−0·2	16·43	79·9	17 11 48	8 44 37	88·4	16·37	80·0	S.B.B.	·62771	8·1161	8·1154	+·0007	8·1157	8·1141	3·7412
,, ,,	15 2	2·8638	0·50	85·1	,,	15·91	82·0	17 12 13	8 44 51	85·7	16·28	80·7	S.B.B.	·62749	8·1137	8·1128	+·0009	8·1132		
,, 24	11 57	2·8611	0·50	82·5	+0·5	16·40	81·0	17 12 6	8 44 50	82·5	16·32	81·1	S.	·62754	8·1225	8·1212	+·0013	8·1218		
,, ,,	14 57	2·8621	0·50	81·2	,,	15·79	81·8	17 12 21	8 44 50	82·8	15·85	81·7	S.	·62735	8·1173	8·1171	+·0002	8·1172		
,, 31	11 27	2·8626	0·55	80·1	0·0	16·08	80·8	17 13 31	8 45 36	80·9	16·14	81·1	S.B.B.	·62745	8·1120	8·1104	+·0016	8·1112		
,, ,,	14 54	2·8635	0·49	82·5	,,	15·60	82·7	17 13 17	8 45 32	82·0	16·02	82·0	S.B.B.	·62754	8·1115	8·1094	+·0021	8·1104		
FEBRUARY 7	12 6	2·8623	0·52	82·0	0·0	16·45	78·6	17 13 20	8 45 15	82·6	16·35	78·7	S.	·62754	8·1137	8·1139	−·0002	8·1138		
,, ,,	15 1	2·8631	0·48	82·9	,,	15·93	79·3	17 13 24	8 45 12	83·6	16·09	79·0	S.	·62758	8·1111	8·1120	−·0009	8·1115		
,, 14	11 22	2·8614	0·49	80·0	−0·3	16·62	79·5	17 12 56	8 45 6	79·6	16·62	79·9	S.B.B.	·62736	8·1190	8·1188	+·0002	8·1189		
,, ,,	15 16	2·8617	0·46	80·2	,,	15·85	81·0	17 13 30	8 45 21	79·8	16·12	80·6	S.B.B.	·62757	8·1161	8·1161	·0000	8·1161	8·1137	3·7411
,, 21	11 31	2·8630	0·53	82·6	0·0	16·06	79·8	17 14 1	8 45 36	81·8	15·94	80·0	S.B.B.	·62758	8·1104	8·1105	−·0001	8·1104		
,, ,,	13 28	2·8633	0·57	83·0	,,	15·67	80·9	17 14 9	8 45 45	81·7	15·87	80·2	S.B.B.	·62767	8·1094	8·1089	+·0005	8·1091		
,, 28	11 0	2·8620	0·48	81·5	0·0	16·87	76·6	17 11 55	8 44 35	85·0	16·70	77·0	S.B.B.	·62734	8·1175	8·1175	·0000	8·1175		
,, ,,	14 54	2·8633	0·51	83·8	,,	15·75	79·0	17 12 17	8 44 47	86·9	15·99	77·8	S.B.B.	·62752	8·1124	8·1122	+·0002	8·1123		
MARCH 7	11 52	2·8621	0·41	80·9	−0·1	15·62	81·8	17 13 37	8 45 25	81·4	15·65	82·0	S.B.B.	·62771	8·1150	8 1150	·0000	8·1150		
,, ,,	15 3	2·8635	0·44	83·5	,,	15·05	83·0	17 14 7	8 45 40	82·5	15·21	82·9	S.B.B.	·62773	8·1092	8·1090	+·0002	8·1091		
,, 14	12 24	2·8618	0·48	79·1	0·0	16·12	81·0	17 13 35	8 45 26	79·5	16·02	81·0	S.B.B.	·62734	8·1147	8·1145	+·0002	8·1146		
,, ,,	14 54	2·8622	0·44	80·8	,,	15·56	81·9	17 13 37	8 45 27	80·4	15·62	81·4	S.B.B.	·62748	8·1141	8·1137	+·0004	8·1139	8·1157	3·7420
,, 22	11 49	2·8608	0·63	80·2	−0·2	16·76	82·0	17 12 37	8 44 59	79·8	16·71	82·0	S.B.B.	·62738	8·1216	8·1212	+·0004	8·1214		
,, ,,	15 10	2·8637	0·68	83·5	,,	15·72	83·0	17 12 55	8 45 7	80·8	16·23	82·6	S.B.B.	·62735	8 1139	8·1137	+·0002	8·1138		
,, 28	11 55	2·8610	0·53	82·5	0·0	16·03	84·0	17 12 17	8 44 55	82·6	16·02	84·1	S.B.B.	·62764	8·1218	8·1206	+·0012	8·1212		
,, ,,	15 18	2·8624	0·54	84·1	,,	15·11	84·8	17 12 37	8 45 2	83·4	15·72	84·5	S.B.B.	·62786	8 1173	8 1165	+·0008	8·1169		

Absolute Magnetical Observations—Table II.

Observations of Absolute Declination.

1906.

1906. Date.	Bombay Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Tárdeo Chimney.	Torsion. Mean.	Effect of 90°.	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″
JAN. 4	11 34	+1·55	+1·26	16 44 40	196 57 40	0		S.B.B.	18·60	0 13 45		
,, 11	11 44	+1·55	+1·39	16 44 0	196 57 10	0		S.	18·51	0 13 27	18·50	0 13 37
,, 18	11 40	+1·56	+1·39	16 44 0	196 57 0	0		S.B.B.	18·44	0 13 37		
,, 25	11 13	+1·52	+1·31	16 44 0	196 57 0	0		S.	18·45	0 13 40		
FEB. 1	11 50	+1·55	+1·29	16 45 0	196 57 20	0		S.B.B.	18·62	0 14 24		
,, 8	11 20	+1·51	+1·34	16 45 10	196 57 20	0		S.	18·60	0 14 27	18·59	0 14 28
,, 15	11 20	+1·55	+1·31	16 45 20	196 57 40	0		S.B.B.	18·52	0 14 23		
,, 22	11 4	+1·57	+1·29	16 45 30	196 57 35	0		S.	18·62	0 14 40		
MARCH 1	11 25	+1·54	+1·29	16 43 20	196 57 0	0		S.B.B.	18·41	0 13 3		
,, 8	10 58	+1·57	+1·32	16 43 10	196 57 0	0		S.	18·41	0 12 53		
,, 15	11 44	+1·55	+1·26	16 43 40	196 57 0	0		S.B.B.	18·49	0 13 25	18·39	0 12 46
,, 23	11 12	+1·52	+1·30	16 44 50	196 56 50	0		S.	18·61	0 14 41		
,, 29	11 55	+1·56	+1·21	16 40 0	196 57 0	0		S.B.B.	18·05	0 9 49		

Absolute Magnetical Observations—Table III.

OBSERVATIONS OF INCLINATION, 1906.

Taken with Barrow's Dip Circle, with Microscopes, No. 49 and two 3½-inch Needles, Nos. 1 and 2, by Dover Charlton.

1906. Date.	Bombay Civil Time (0 to 24 hours.) At commencement.	At conclusion.	Observer.	Needle Marked.	End of Needle Dipping. A. End of Circle. East	A. End of Circle. West.	B. End of Circle. East	B. End of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 2	11 56	13 0	S.	2	23 1·4	21 51·5	22 12·9	21 1·0	22 1·7		
„ 5	14 36	15 47	S.B.B.	1	23 16·9	22 20·0	21 42·4	20 44·0	22 0·8	No. 2 ° ′	
„ 9	11 43	12 50	S.	1	23 24·2	22 28·2	21 43·7	20 32·5	22 2·1	22 1·4	
„ 12	14 23	15 39	S.	2	22 58·5	21 54·0	22 22·2	21 1·9	22 4·1		
„ 16	11 27	12 30	S.B.B.	2	23 3·7	21 53·6	22 8·2	20 56·2	22 0·4		22 1·3
„ 19	14 37	15 42	S.B.B.	1	23 23·4	22 26·4	21 42·6	20 34·2	22 1·6	No. 1 ° ′	
„ 23	12 23	13 28	S.	1	23 15·9	22 17·4	21 46·9	20 38·6	21 59·7	22 1·0	
„ 26	14 15	15 20	S.	2	23 1·2	21 48·4	22 24·4	21 2·6	22 4·1		
„ 30	11 22	12 41	S.B.B.	2	22 37·7	21 33·0	22 24·2	21 12·4	21 56·8		
FEB. 2	14 49	15 52	S.B.B.	1	23 28·7	22 25·0	21 43·2	20 31·5	22 2·1		
„ 6	11 33	12 45	S.	1	23 27·1	22 29·1	21 43·7	20 33·7	22 3·4	No. 2 ° ′	
„ 9	14 25	15 29	S.	2	22 58·7	21 53·9	22 20·0	21 0·5	22 3·3	22 2·9	
„ 13	10 48	12 4	S.B.B.	2	23 4·0	21 48·9	22 7·7	21 10·4	22 2·7		
„ 16	14 38	15 45	S.B.B.	1	23 27·2	22 25·2	21 47·2	20 30·5	22 2·5	No. 1 ° ′	22 2·8
„ 20	11 24	12 30	S.	1	23 25·6	22 25·5	21 45·7	20 34·6	22 2·8	22 2·7	
„ 23	14 21	15 28	S.	2	23 0·6	21 51·9	22 15·4	21 2·2	22 2·5		
„ 27	11 2	12 23	S.B.B.	2	23 5·5	21 47·1	22 13·5	21 6·9	22 3·2		
MAR. 2	14 39	15 50	S.B.B.	1	23 25·5	22 29·2	21 43·1	20 36·1	22 3·5		
„ 5	12 2	12 55	V.V.N.	1	23 19·2	22 18·5	21 49·7	20 42·2	22 2·4	No. 2 ° ′	
„ 9	14 50	15 42	V.V.N.	2	22 58·5	21 53·0	22 14·0	21 2·5	22 2·0	22 1·1	
„ 13	11 28	12 41	S.B.B.	2	22 57·2	21 53·5	22 14·2	20 59·5	22 1·1		
„ 16	14 22	15 25	S.B.B.	1	23 19·2	22 30·2	21 45·6	20 33·2	22 2·0		22 2·4
„ 20	10 46	12 0	V.V.N.	1	23 8·0	22 49·2	21 46·6	20 37·5	22 5·3	No. 1 ° ′	
„ 23	14 48	15 55	V.V.N.	2	22 56·2	21 53·2	22 13·5	21 0·0	22 0·7	22 3·5	
„ 27	11 37	12 54	S.B.B.	2	23 4·0	21 53·0	22 8·2	20 57·4	22 0·6		
„ 30	14 46	15 47	S.B.B.	1	23 26·0	22 30·5	21 45·4	20 35·6	22 4·4		

Absolute Magnetical Observations—Table IIIa.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1906.

Taken with Barrow's Dip Circle, with Microscopes, No 49 and two 3½-inch Needles Nos. 3 and 4, by Dover.

1906. Date.	Bombay Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 2	11 25	13 32	S.	3	22 43·6	21 7·5	22 55·7	21 24·0	22 2·7		
„ 5	14 0	16 22	S.B.B	4	22 57·1	20 48·2	23 9·0	21 15·7	22 2·5	No. 3	
„ 9	11 10	13 29	S.	4	22 58·1	21 8·2	23 2·6	21 3·5	22 3·1	22 2·3	
„ 12	13 43	16 19	S.	3	22 43·5	21 9·6	23 2·4	21 23·1	22 4·6		
„ 16	10 50	13 0	S.B.B.	3	22 37·6	21 9·4	22 53·6	21 21·5	22 0·5		22 2·4
„ 19	14 5	16 17	S.B.B.	4	22 55·9	21 8·2	23 6·0	21 2·0	22 3·0		
„ 23	11 50	14 4	S.	4	22 50·2	21 19·6	22 59·9	20 56·7	22 1·6	No. 4	
„ 26	13 39	15 55	S.	3	22 36·2	21 20·1	22 57·2	21 22·0	22 3·9	22 2·5	
„ 30	10 50	13 13	S.B.B.	3	22 25·7	21 8·1	22 57·1	21 28·7	21 59·9		
FEB. 2	14 15	16 27	S.B.B.	4	22 56·2	21 9·2	23 2·5	21 3·0	22 2·7		
„ 6	10 58	13 20	S.	4	22 52·0	21 16·7	23 3·7	21 0·1	22 3·1	No. 3	
„ 9	13 49	16 1	S.	3	22 35·5	21 14·5	22 58·7	21 23·1	22 2·9	22 2·4	
„ 13	10 15	12 40	S.B.B.	3	22 28·1	21 22·5	22 55·4	21 21·9	22 2·0		
„ 16	14 5	16 18	S.B.B.	4	22 53·2	21 16·1	23 2·2	20 58·4	22 2·5		22 2·6
„ 20	10 50	13 7	S.	4	22 52·1	21 16·7	23 2·9	21 0·5	22 3·0	No. 4	
„ 23	13 47	16 1	S.	3	22 32·9	21 20·2	22 56·6	21 19·7	22 2·3	22 2·8	
„ 27	10 30	12 58	S.B.B.	3	22 33·0	21 19·1	22 53·9	21 24·1	22 2·5		
MAR. 2	14 5	16 30	S.B.B.	4	22 53·1	21 17·5	23 3·0	21 0·0	22 3·4		
„ 5	11 35	13 30	V.V.N	4	23 11·0	20 50·0	23 22·7	20 56·9	22 5·4	No. 3	
„ 9	14 13	16 12	V.V.N.	3	22 44·5	21 9·7	23 0·0	21 27·7	22 5·5	22 4·1	
„ 13	10 50	13 13	S.B.B.	3	22 43·9	21 9·6	22 56·7	21 24·6	22 3·7		
„ 16	13 50	16 0	S.B.B.	4	23 0·0	21 9·0	23 1·5	20 59·2	22 2·4		22 3·5
„ 20	10 15	12 45	V.V.N.	4	22 42·0	20 49·5	23 14·7	21 16·2	22 0·4		
„ 23	14 12	16 20	V.V.N.	3	22 40·5	21 7·2	23 7·2	21 27·0	22 5·5	No. 4	
„ 27	11 0	13 25	S.B.B.	3	22 37·2	21 9·6	22 56·6	21 23·6	22 1·7	22 3·0	
„ 30	14 16	16 20	S.B.B.	4	22 52·5	21 17·2	23 6·2	20 57·2	22 3·3		

Absolute Magnetical Observations—Table. IIIb.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1906.

Taken with New (Dover, Charlton's) Dip Circle, with Microscopes, No. 110 and two 3½-inch Needles Nos. 3 and 4 by Dover.

1906. Date.	Bombay Civil Time (0 to 24 hours). At commence-ment.	At conclu-sion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′	° ′
JAN. 29	10 55	12 2	S. B. B.	3	21 59·7	22 31·4	22 32·2	21 43·7	21 56·7	21 58·1
„ 29	12 20	13 9	S. B. B.	4	22 26·7	22 42·8	22 10·9	21 37·7	21 59·5	
FEB. 27	13 50	14 50	S.	3	22 6·4	22 30·2	22 39·2	21 53·7	22 2·4	22 2·8
„ 27	14 58	16 5	S.	4	22 29·1	22 43·8	22 19·2	21 49·8	22 3·2	
MAR. 31	11 35	12 40	S. B. B.	3	21 52·2	22 35·3	22 36·1	21 45·1	21 57·2	21 58·9
„ 31	12 48	13 47	S. B. B.	4	22 36·4	22 41·7	22 11·7	21 39·2	22 0·7	

TABLES OF RESULTS

OF

ABSOLUTE MAGNETICAL OBSERVATIONS

AT ALIBAG,

1904 AND 1905.

B 1011—14 2

Absolute Magnetical Observations, Alibag—Table I.

Observations of Vibration and Deflection, taken with the Magnetometer No. 7 (T. Cooke and Sons) for the determination of Absolute Horizontal Force.

1904.

1904. Date.	Civil Time, Mean.	Vibration Magnet. Time of one Vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Angle of Deflection of Magnet Marked 7. Distance. 22·5 Cms.	30·0 Cms.	Temperature	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer	Observer.	Calculated Results in C. G. S. Units. Values of X. Values of X.	From Deflections at distance. 22·5 Cms. ($X_{22·5}$)	30·0 Cms ($X_{30·0}$)	Difference. $X_{22·5} - X_{30·0}$	Mean. $\frac{X_{22·5} + X_{30·0}}{2}$	Observed Monthly Mean Value of X.	Corrected Monthly Mean Values of X.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc.div.	°	s.		°	° ′ ″	° ′ ″	°		°								
JANUARY 4	12 38	2·7022	1·33	27·8	−4·0	Scale readings not available.		26 44 55	10 52 37	27·4	Scale readings not available.		G.S.J.	942·04	·36869	·36869	·00000	·36869		
,, ,,	14 48	2·7027	1·34	27·2	,,			26 45 15	10 52 44	27·1			G.S.J.	941·74	·36856	·36856	·00000	·36856		
,, 17	12 34	2·6994	1·34	24·9	−0·6			26 46 12	10 53 5	25·0			G.S.J.	942·22	·36892	·36893	−·00001	·36892		
,, ,,	15 8	2·7017	1·36	25·8	,,			26 46 46	10 53 13	25·3			G.S.J.	941·81	·36860	·36862	−·00002	·36861	·0·36879	0·36875
,, 18	12 2	2·6990	1·35	25·2	−0·6			26 46 6	10 53 5	25·1			S.	942·43	·36900	·36899	+·00001	·36899		
,, ,,	15 10	2·7010	1·35	25·3	,,			26 46 34	10 53 20	25·2			S.	941·93	·36868	·36865	+·00003	·36866		
,, 25	12 25	2·7000	1·35	26·2	−0·6			26 43 7	10 51 54	26·8			G.S.J.	941·87	·36911	·36912	−·00001	·36911		
,, ,,	15 11	2·7021	1·34	27·7	,,			26 44 0	10 52 16	27·2			G.S.J.	941·80	·36882	·36882	·00000	·36882		
FEBRUARY 1	13 10	2·7004	1·36	25·3	−0·7			26 45 47	10 53 1	25·5			G.S.J.	941·98	·36881	·36879	+·00002	·36880		
,, ,,	15 7	2·7020	1·36	26·1	,,			26 45 56	10 53 10	25·9			G.S.J.	941·76	·36860	·36856	+·00004	·36858		
,, 15	12 56	2·7017	1·48	27·7	−0·4			26 41 43	10 51 22	27·9			G.S.J.	941·46	·36905	·36906	−·00001	·36905		
,, ,,	15 (	2·7036	1·47	28·1	,,			26 42 2	10 51 32	28·0			G.S.J.	941·00	·36879	·36879	·00000	·36879	·0·36891	0·36878
,, 22	12 (	2·7006	1·47	26·2	−0·6			26 42 55	10 51 51	26·2			G.S.J.	941·46	·36910	·36910	·00000	·36910		
,, ,,	15 25	2·7016	1·34	26·1	,,			26 43 34	10 52 8	26·1			G.S.J.	941·26	·36890	·36889	+·00001	·36889		
,, 29	12 18	2·7007	1·32	27·0	−0·3			26 41 45	10 51 26	26·9			G.S.J.	941·46	·36922	·36722	·00000	·36922		
,, ,,	15 2	2·7024	1·32	27·1	,,			26 42 44	10 51 46	26·9			G.S.J.	941·15	·36889	·36890	−·00001	·36889		
MARCH 14	12 44	2·7000	1·25	26·9	−1·3	102·3	85·0	26 42 11	10 51 38	27·0	100·0	85·0	G.S.J.	941·85	·36926	·36924	+·00002	·36925		
,, ,,	15 11	2·7020	1·26	27·7	,,	93·4	85·0	26 42 33	10 51 46	27·7	95·1	85·0	G.S.J.	941·54	·36894	·36893	+·00001	·36893		
,, 21	12 16	2·7015	1·26	29·0	−0·9	91·2	85·8	26 40 49	10 51 5	29·0	89·9	85·8	G.S.J.	941·87	·36920	·36920	·00000	·36920	·0·36905	0·36891
,, ,,	14 58	2·7034	1·25	28·8	,,	82·7	85·9	26 41 50	10 51 27	28·9	85·0	85·9	G.S.J.	941·41	·36882	·36882	·00000	·36882		
,, 28	12 5	2·7014	1·25	28·8	−0·9	82·5	86·7	26 40 44	10 51 0	28·7	79·8	86·7	G.S.J.	941·76	·36922	·36923	−·00001	·36922		
,, ,,	15 4	2·7031	1·23	28·9	,,	73·3	86·9	26 41 35	10 51 22	29·0	74·4	86·9	G.S.J.	941·50	·36889	·36889	·00000	·36889		

1904. Date.	Civil Time. Mean.	Vibration Magnet. Time of one Vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Angle of Deflection of Magnet Marked 7. Distance. 22·5 Cms.	30·0 Cms.	Temperature	Corresponding Mean Reading of H. F. Magnethograph. Scale Reading.	Thermometer.	Observer.	Calculated Results in C. G. S. Units. Value of m.	Value of X. From Deflections at distance. 22·5 Cms. ($X_{22·5}$)	30·0 Cms. ($X_{30·0}$)	Difference. ($X_{22·5} - X_{30·0}$)	Mean. $\frac{(X_{22·5} + X_{30·0})}{2}$	Observed Monthly Mean Value of X.	Correctly Monthly Mean Values of X.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	So. div.	o	s.		o	o ′ ″	o ′ ″	o		o								
April 4	12 31	2·7025	1·25	29·1	− 1·0	Not available.		26 41 16	10 51 18	28·7	58·8	88·1	G.S.J.	941·59	·36904	·36901	+·00003	·36902		
,, ,,	15 17	2·7043	1·23	29·3	,,	51·1	88·1	26 41 48	10 51 29	29·3	54·1	88·1	G.S.J.	941·30	·36871	·36870	+·00001	·36870		
,, 11	12 18	2·7024	1·27	29·7	− 0·9	50·2	89·1	26 39 37	10 50 37	29·9	49·7	89·1	G.S.J.	941·61	·36918	·36917	+·00001	·36917		
,, ,,	15 12	2·7042	1·23	30·0	,,	40·1	89·1	26 40 30	10 50 56	30·0	43·7	89·1	G.S.J.	941·28	·36886	·36886	·00000	·36886	0·36905	0·36879
,, 18	12 13	2·7016	1·26	29·0	− 1·0	37·5	89·9	26 40 46	10 50 52	29·0	33·3	89·9	G.S.J.	941·72	·36918	·36923	−·00005	·36920		
,, ,,	15 13	2·7025	1·26	29·3	,,	33·9	90·0	26 40 37	10 51 3	29·3	32·1	90·0	G.S.J.	941·59	·36907	·36905	+·00002	·36906		
,, ,,	15 13	2·7025	1·26	29·8	− 0·9	25·5	90·9	26 38 25	10 50 14	30·0	23·3	91·0	G.S.J.	941·63	·36942	·36939	+·00003	·36940		
,, 25	12 17	2·7016	1·26	29·8	− 0·9	15·8	90·1	26 39 31	10 50 37	30·2	17·1	91·0	G.S.J.	941·22	·36900	·36898	+·00002	·36899		
,, ,,	15 10	2·7039	1·23	30·1	,,															
May 2	13 7	2·7042	1·24	29·6	− 0·9	† 83·7	91·9	26 39 25	10 50 31	29·4	† 80·9	91·9	N.	940·76	·36899	·36899	·00000	·36899		
,, ,,	15 35	2·7051	1·24	30·0	,,	78·9	91·9	26 39 32	10 50 36	30·0	79·1	91·9	N.	940·74	·36884	·36883	+·00001	·36883		
,, 9	12 35	2·7025	1·46	29·7	− 0·5	79·0	92·6	26 37 31	10 49 51	30·0	76·8	92·6	N.	941·00	·36937	·36936	+·00001	·36936		
,, ,,	15 10	2·7043	1·43	29·8	,,	70·2	92·6	26 38 37	10 50 14	30·1	71·7	92·6	N.	940·70	·36902	·36902	·00000	·36902		
,, 16	13 0	2·7045	1·29	30·1	− 1·0	56·8	93·1	26 39 20	10 50 31	30·0	54·4	93·2	N.	940·87	·36894	·36893	+·00001	·36893	·0·36895	0·36879
,, ,,	15 53	2·7056	1·23	30·9	,,	50·2	93·3	26 38 56	10 50 30	30·5	51·7	93·3	N.	940·74	·36887	·36882	+·00005	·36884		
,, 23	12 0	2·7031	1·25	29·9	− 0·6	69·5	94·8	26 38 5	10 50 3	30·3	68·7	94·8	N.	941·09	·36923	·36922	+·00001	·36922		
,, ,,	14 57	2·7052	1·25	30·2	,,	59·8	94·9	26 39 12	10 50 35	30·9	62·1	94·9	N.	940·89	·36880	·36876	+·00004	·36878		
,, 30	12 14	2·7049	1·23	30·3	− 0·8	44·6	94·9	26 40 12	10 50 46	30·0	45·1	94·9	G.S.J.	941·02	·36882	·36884	−·00002	·36883		
,, ,,	15 4	2·7056	1·22	30·4	,,	39·4	94·9	26 40 15	10 50 56	30·5	40·7	94·9	G.S.J.	940·98	·36869	·36866	+·00003	·36867		
June 6	12 33	2·7022	1·23	31·0	− 1·3	47·8	95·2	26 36 12	10 49 21	31·0	43·0	95·2	G.S.J.	941·26	·36958	·36956	+·00002	·36957		
,, ,,	15 6	2·7047	1·25	31·1	,,	30·2	95·3	26 37 15	10 49 45	31·3	38·7	95·2	G.S.J.	940·76	·36911	·36909	+·00002	·36910		
,, 13	12 46	2·7020	1·24	29·6	− 1·1	24·1	93·9	26 39 32	10 50 33	29·8	20·6	93·9	G.S.J.	941·63	·36923	·36924	−·00001	·36923		
,, ,,	15 5	2·7041	1·20	29·9	,,	15·7	93·9	26 39 47	10 50 38	29·8	18·2	93·9	G.S.J.	941·07	·36895	·36896	−·00001	·36895	·0·36907	0·36884
,, 20	12 32	2·7022	1·16	28·6	− 0·6	† 106·7	92·8	26 40 46	10 51 9	28·9	† 103·3	92·8	G.S.J.	941·54	·36909	·36905	+·00004	·36907		
,, ,,	15 17	2·7046	1·16	28·7	,,	95·3	92·8	26 42 32	10 51 47	28·6	98·4	92·8	G.S.J.	941·15	·36861	·36860	+·00001	·36860		
,, 27	12 41	2·7028	1·27	29·1	− 1·3	99·9	92·0	26 39 7	10 50 20	29·5	98·1	92·0	G.S.J.	941·07	·36916	·36918	−·00002	·36917		
,, ,,	15 6	2·7048	1·26	29·8	,,	89·0	92·0	26 39 37	10 50 36	29·7	94·2	92·0	G.S.J.	940·70	·36887	·36888	−·00001	·36887		
July 4	12 33	2·7013	1·27	26·8	− 0·6	91·9	91·0	26 40 47	10 51 7	26·9	90·5	91·0	G.S.J.	940·98	·36923	·36921	+·00002	·36922		
,, ,,	15 1	2·7025	1·28	26·7	,,	83·1	90·9	26 42 6	10 51 32	26·6	85·6	90·9	G.S.J.	940·78	·36894	·36895	−·00001	·36894		
,, 11	12 20	2·7027	1·27	28·5	− 1·4	77·8	89·7	26 39 42	10 50 35	28·8	79·7	89·7	G.S.J.	940·94	·36912	·36913	−·00001	·36912		
,, ,,	15 0	2·7040	1·27	28·9	,,	76·1	89·8	26 40 6	10 50 44	28·7	78·2	89·8	G.S.J.	940·65	·36894	·36895	−·00001	·36894	·0·36907	·036888
,, 18	12 25	2·7016	1·27	29·1	− 1·7	78·5	89·5	26 39 15	10 50 26	29·1	74·7	89·5	G.S.J.	941·41	·36934	·36935	−·00001	·36934		
,, ,,	15 2	2·7037	1·27	28·9	,,	64·9	89·5	26 40 27	10 50 52	29·3	68·1	89·5	G.S.J.	941·00	·36889	·36891	−·00002	·36890		
,, 25	12 36	2·7026	1·27	29·4	− 1·7	66·3	89·8	26 39 9	10 50 23	29·4	65·3	89·8	G.S.J.	941·17	·36922	·36922	·00000	·36922		
,, ,,	15 2	2·7043	1·28	29·5	,,	58·7	89·7	26 39 46	10 50 34	29·6	61·3	89·7	G.S.J.	940·81	·36891	·36894	−·00003	·36892		

August	1	12	21	2·7031	1·27	29·3	−1·6	58·7	90·0	26	38	36	10	50	15	29·5	57·9	90·0	G.S.J.	940·87	·36919	·36918	+·00001	·36918		
	,,	15	7	2·7041	1·26	29·4	,,	52·5	90·0	26	39	30	10	50	32	29·4	53·9	90·0	G.S.J.	940·76	·36897	·36898	−·00001	·36897		
	,,	8	12	18	2·7018	1·29	28·0	−2·7	52·0	89·3	26	40	1	10	50	53	28·0	50·6	89·3	G.S.J.	941·11	·36924	·36921	+·00003	·36922		
	,,	,,	15	6	2·7028	1·28	27·4	,,	42·4	89·1	26	41	6	10	51	12	27·8	46·5	89·2	G.S.J.	940·87	·36895	·36894	+·00001	·36894		
	,,	15	12	17	2·7027	1·28	28·7	−2·4	43·6	89·0	26	39	23	10	50	35	28·8	44·3	89·0	G.S.J.	940·94	·36917	·36915	+·00002	·36916	·0·36906	0·36885
	,,	,,	15	7	2·7032	1·29	29·0	,,	41·8	89·0	26	39	32	10	50	34	29·0	42·5	89·0	G.S.J.	940·89	·36910	·36910	·00000	·36910		
	,,	22	12	22	2·7036	1·29	28·4	−0·4	†83·7	89·0	26	40	32	10	50	57	28·6	†83·3	89·0	G.S.J.	940·83	·36892	·36892	·00000	·36892		
	,,	,,	14	59	2·7047	1·30	28·9	,,	81·3	89·0	26	40	45	10	51	10	28·8	81·6	89·0	G.S.J.	940·70	·36878	·36874	+·00004	·36876		
	,,	29	12	13	2·7022	1·30	29·1	−1·5	87·7	89·4	26	38	7	10	50	1	29·4	86·4	89·4	G.S.J.	940·96	·36935	·36935	·00000	·36935		
	,,	,,	15	2	2·7043	1·28	29·5	,,	78·6	89·6	26	39	1	10	50	22	29·6	80·7	89·6	G.S.J.	940·63	·36899	·36899	·00000	·36899		
*Sept.	5	12	23	2·7026	1·29	29·5	−2·3	81·1	89·7	26	37	57	10	50	0	29·4	79·8	89·7	G.S.J.	940·89	·36934	·36933	+·00001	·36933		
	,,	15	1	2·7037	1·29	29·6	,,	73·3	89·8	26	38	32	10	50	16	29·6	75·5	89·8	G.S.J.	940·74	·36913	·36911	+·00002	·36912		
	,,	12	12	39	2·7023	1·29	27·6	−2·0	68·8	89·8	26	40	6	10	50	47	27·6	67·9	89·8	G.S.J.	940·74	·36916	·36916	·00000	·36916		
	,,	,,	15	3	2·7034	1·28	27·9	,,	62·9	89·8	26	40	54	10	51	0	28·0	64·7	89·8	G.S.J.	940·70	·36892	·36894	−·00002	·36893	·0·36895	0·36881
	,,	19	13	14	2·7035	1·28	28·3	−3·6	57·4	89·6	26	40	42	10	51	2	28·3	56·9	89·7	G.S.J.	940·76	·36892	·36892	·00000	·36892		
	,,	,,	15	12	2·7039	1·28	28·4	,,	55·4	89·7	26	40	43	10	51	6	28·5	55·9	89·7	G.S.J.	940·74	·36886	·36883	+·00003	·36884		
	,,	26	12	25	2·7047	1·28	28·9	−3·3	46·0	89·5	26	41	19	10	51	15	28·9	44·6	89·5	G.S.J.	940·81	·36870	·36870	·00000	·36870		
	,,	,,	15	3	2·7056	1·27	28·9	,,	42·0	89·5	26	41	20	10	51	10	29·0	44·4	89·5	G.S.J.	940·50	·36856	·36859	−·00003	·36857		
October	3	12	27	2·7037	1·31	30·5	−3·5	49·6	90·0	26	37	25	10	49	48	30·3	48·8	90·0	G.S.J.	940·76	·36926	·36924	+·00002	·36925		
	,,	15	0	2·7053	1·29	30·9	,,	42·0	90·0	26	38	6	10	50	6	30·7	44·2	90·0	G.S.J.	940·59	·36896	·36894	+·00002	·36895		
	,,	10	12	49	2·7043	1·27	30·5	−3·6	†98·7	90·6	26	38	53	10	50	20	30·3	†96·3	90·6	G.S.J.	940·96	·36902	·36902	·00000	·36902		
	,,	,,	15	6	2·7059	1·30	31·0	,,	90·7	90·7	26	39	26	10	50	34	30·9	91·6	90·7	G.S.J.	940·81	·36873	·36872	+·00001	·36872		
	,,	17	12	22	2·7037	1·27	30·2	−3·6	95·0	90·6	26	38	52	10	50	20	30·2	93·9	90·6	G.S.J.	941·07	·36909	·36908	+·00001	·36908	·0·36891	0·36878
	,,	,,	15	3	2·7050	1·26	30·4	,,	88·0	90·6	26	39	37	10	50	35	30·2	90·2	90·6	G.S.J.	940·85	·36884	·36885	−·00001	·36884		
	,,	24	12	17	2·7037	1·30	30·0	−3·4	86·8	90·8	26	39	11	10	50	30	30·1	85·4	90·8	G.S.J.	941·09	·36904	·36902	+·00002	·36903		
	,,	,,	15	4	2·7048	1·28	30·5	,,	80·1	90·8	26	39	39	10	50	39	30·5	81·3	90·8	G.S.J.	941·04	·36885	·36884	+·00001	·36884		
	,,	31	12	30	2·7048	1·28	30·5	−3·4	76·5	90·5	26	39	22	10	50	35	30·6	74·2	90·5	G.S.J.	941·00	·36888	·36885	+·00003	·36886		
	,,	,,	15	3	2·7067	1·31	30·6	,,	68·4	90·8	26	40	13	10	50	55	30·7	69·6	90·7	G.S.J.	940·63	·36852	·36849	+·00003	·36850		
Nov.	7	12	26	2·7046	1·30	29·9	−3·3	74·3	90·0	26	39	56	10	50	45	29·7	71·9	90·0	G.S.J.	940·87	·36887	·36886	+·00001	·36886		
	,,	15	11	2·7049	1·28	28·9	,,	64·4	90·0	26	41	21	10	51	13	29·0	65·7	90·0	G.S.J.	940·76	·36865	·36867	−·00002	·36866		
	,,	14	12	15	2·7024	1·27	27·9	−3·4	73·2	89·0	26	40	5	10	50	47	27·6	72·2	89·0	G.S.J.	940·74	·36917	·36916	+·00001	·36916		
	,,	,,	15	15	2·7036	1·29	28·1	,,	67·7	89·0	26	40	42	10	51	0	28·1	68·6	89·0	G.S.J.	940·63	·36891	·36891	·00000	·36891	·0·36891	0·36879
	,,	21	12	21	2·7029	1·28	28·2	−3·1	68·3	88·4	26	40	15	10	50	46	28·3	65·9	88·4	G.S.J.	940·81	·36905	·36907	−·00002	·36906		
	,,	,,	15	15	2·7042	1·28	28·7	,,	60·8	88·4	26	39	53	10	50	45	28·9	62·2	88·4	G.S.J.	940·55	·36889	·36888	+·00001	·36888		
	,,	28	12	13	2·7025	1·29	26·8	−4·0	63·2	87·4	26	41	6	10	51	11	27·0	60·5	87·4	G.S.J.	940·59	·36900	·36899	+·00001	·36899		
	,,	,,	15	13	2·7037	1·28	27·3	,,	54·2	87·4	26	42	0	10	51	28	27·2	55·8	87·4	G.S.J.	940·57	·36877	·36877	·00000	·36877		
Dec.	5	12	21	2·7032	1·26	26·9	−4·8	56·7	86·5	26	41	29	10	51	17	27·2	54·4	86·5	G.S.J.	940·52	·36886	·36887	−·00001	·36886		
	,,	14	58	2·7047	1·29	27·3	,,	47·1	86·6	26	42	26	10	51	41	27·2	49·6	86·5	G.S.J.	940·35	·36859	·36858	+·00001	·36858		
	,,	12	12	44	2·7014	1·44	25·8	−3·3	56·2	86·0	26	39	24	10	50	25	26·0	53·9	86·0	N.	940·00	·36933	·36936	−·00003	·36934		
	,,	,,	15	18	2·7029	1·48	27·0	,,	50·8	86·0	26	39	27	10	50	32	26·2	52·0	86·0	N.	939·83	·36921	·36921	·00000	·36921	·0·36899	0·36892
	,,	19	13	6	2·7016	1·48	26·5	−3·0	54·4	85·5	26	41	8	10	51	12	27·0	51·1	85·5	N.	940·83	·36909	·36909	·00000	·36909		
	,,	,,	15	22	2·7031	1·45	27·4	,,	48·9	85·6	26	41	10	10	51	17	27·0	49·9	85·6	N.	940·55	·36896	·36894	+·00002	·36895		
	,,	26	12	19	2·7027	1·44	27·3	−3·1	48·6	85·3	26	41	15	10	51	9	26·9	48·4	85·3	G.S.J.	940·61	·36900	·36903	−·00003	·36901		
	,,	,,	15	2	2·7034	1·46	27·2	,,	42·7	85·4	26	41	24	10	51	17	27·1	45·1	85·4	G.S.J.	940·44	·36887	·36887	·00000	·36887		

The mean value of the Horizontal Force for the year 1904 = 0·36898 0·36882

* The place of observation of Inst. No. 7 was transferred from the first to the second floor.

† Readjustment of the H. F. Magnetograph.

Absolute Magnetical Observations, Alibag.—Table I*a*.

Observations of Vibration and Deflection, taken with the auxiliary Kew Unifilar (Cambridge Scientific Instrument Co.) for the determination of Absolute Horizontal Force.

1904.

1904. Date.	Civil Time, Mean.	Time of one Vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean, Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Angle of Deflection. Distance. 23 Cms.	30 Cms.	Temperature	Corresponding Mean, Reading of H. F. Magnetograph. Scale. Reading.	Thermometer.	Observer.	Calculated Results in C. G. S. Units. Values of m.	Values of X. From Deflections at distance. 23 Cms. (X_{23})	30 Cms. (X_{30})	Difference. $X_{23}-X_{30}$	Mean. $\frac{X_{23}+X_{30}}{2}$	Observed Monthly Mean Values of X.	Corrected Monthly Mean Values of X.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc.div.	°	s.		°	° ′ ″	° ′ ″	°		°								
JANUARY 6	12 57	2·8530	1·82	26·9	—4·3	Scale readings not available.		24 6 16	10 37 10	26·7	Scale readings not available.		G.S.J.	926·96	0·36872	0·36869	+·00003	0·36870	0·36889	0·36875
,, ,,	15 21	2·8544	1·79	27·4	,,			24 6 27	10 37 7	27·1			G.S.J.	926·72	·36854	·36853	+·00001	·36853		
,, 13	12 46	2·8517	1·75	25·0	—4·2			24 4 17	10 36 38	25·7			G.S.J.	926·28	·36906	·36894	+·00012	·36900		
,, ,,	15 10	2·8530	1·84	26·5	,,			24 4 2	10 36 41	25·8			G.S.J.	926·15	·36903	·36887	+·00016	·36895		
,, 20	12 23	2·8498	1·85	24·3	—0·7			24 6 35	10 37 10	24·7			G.S.J.	927·09	·36907	·36907	·00000	·36907		
,, ,,	15 18	2·8524	1·74	25·6	,,			24 6 8	10 36 59	25·7			G.S.J.	926·62	·36882	·36881	+·00001	·36881		
,, 27	12 17	2·8523	1·73	27·1	—0·5			24 3 39	10 35 56	27·6			S.	926·64	·36908	·36908	·00000	·36908		
,, ,,	15 17	2·8534	1·73	28·0	,,			24 3 30	10 35 51	27·9			S.	926·51	·36901	·36902	·00000	·36901		
FEBRUARY 3	12 53	2·8522	1·81	25·8	—0·7			24 5 48	10 36 43	26·3			S.	926·72	·36884	·36888	−·00004	·36886		
,, ,,	15 12	2·8544	1·76	26·9	,,			24 6 22	10 37 0	26·8			S.	926·53	·36854	·36856	−·00002	·36855		
,, 10	12 3	2·8559	1·71	26·8	—0·4			24 3 56	10 36 5	26·4			G.S.J.	925·25	·36867	·36866	+·00001	·36866		
,, ,,	15 21	2·8571	1·64	27·7	,,			24 3 10	10 35 50	27·0			G.S.J.	924·98	·36863	·36860	+·00003	·36861	0·36878	0·36875
,, 17	12 27	2·8545	1·75	26·1	—0·5			24 2 11	10 35 35	26·2			G.S.J.	925·06	·36901	·36894	+·00007	·36897		
,, ,,	15 8	2·8561	1·63	26·8	,,			24 2 41	10 35 44	26·5			G.S.J.	924·89	·36879	·36874	+·00005	·36876		
,, 24	12 17	2·8542	1·77	25·8	—0·4			24 2 52	10 35 46	25·7			G.S.J.	925 17	·36899	·36894	+·00005	·36896		
,, ,,	15 19	2·8553	1·80	26·7	,,			24 2 47	10 35 45	26·4			G.S.J.	925·10	·36888	·36882	+·00006	·36885		
MARCH 2	12 46	2·8546	1·73	26·8	—0·1			24 2 50	10 35 28	26·6			S.	925·32	·36894	·36899	−·00005	·36896		
,, ,,	15 24	2·8558	1·74	26·9	,,			24 2 32	10 35 42	26·8			S.	925·02	·36882	·36875	+·00007	·36878		
,, 9	12 39	2·8545	1·63	26·4	—0·6			24 2 22	10 35 22	26·3			G.S.J.	925·10	·36902	·36902	·00000	·36902		
,, ,,	15 9	2·8556	1·78	26·9	,,			24 2 31	10 35 46	26·7			G.S.J.	925·08	·36885	·36877	+·00008	·36881		
,, 16	14 20	2·8548	2·10	28·2	—1·1	96·9	85·1	24 1 20	10 35 5	28·5	94·0	85·2	G.S.J.	925·53	·36902	·36899	+·00003	·36900	0·36897	0·36888
,, ,,	16 4	2·8561	2·24	28·8	,,	89·4	85 1	24 1 47	10 35 7	28·8	91·6	85·2	G.S.J.	925·36	·36882	·36883	−·00001	·36882		
,, 24	12 2	2·8542	2·09	28·0	—1·0	90·0	86·1	23 59 26	10 34 34	28·0	87·6	86·1	G.S.J.	925·10	·36936	·36925	+·00011	·36930		
,, ,,	15 16	2·8556	2·01	28·7	,,	80·6	86·2	24 0 43	10 34 36	28·5	82·9	86·2	G.S.J.	925·12	·36904	·36907	−·00003	·36905		
,, 30	12 13	2·8568	2·19	31·2	− 0·7	77·6	87·2	23 58 45	10 34 4	30·9	75 7	87·2	G S.J.	925·32	·36911	·36906	+·00005	·36908		
,, ,,	15 16	2·8578	2·08	31·0	,,	69 6	87·3	23 58 52	10 34 10	31·1	71·8	87·3	G.S.J.	925·08	·36894	·36888	+·00006	·36891		

April	6	12	33	2·8547	2·12	29·4	—0·9	62·1	88·4	24	0	25	10	34	44	28·9	57·4	88·4	G.S.J.	925·66	·36922	·36916	+·00006	·36919			
,,	,,	15	17	2·8573	2·10	29·3	,,	48·8	88·5	24	1	31	10	35	4	29·0	51·8	88·4	G.S.J.	925·10	·36873	·36872	+·00001	·36872			
,,	13	12	20	2·8557	2·01	29·6	—1·1	45·6	89·3	23	59	46	10	34	32	29·8	44·6	89·3	G.S.J.	925·42	·36911	·36905	+·00006	·36908			
,,	,,	15	17	2·8577	2·13	29·6	,,	34·1	89·4	24	1	5	10	34	52	29·5	37·1	89·4	G.S.J.	925·00	·36870	·36870	·00000	·36870			
,,	20	12	17	2·8563	2·06	29·3	—1·1	25·4	90·0	24	1	24	10	35	14	28·8	24·5	90·0	G.S.J.	925·42	·36889	·36882	+·00007	·36885			
,,	,,	15	18	2·8573	2·11	29 1	,,	**19·8**	90·0	24	2	3	10	35	20	28·8	**21·4**	90·0	G.S.J.	925·17	·36866	·36865	+·00001	·36865			
,,	27	12	25	2·8570	2·14	29·9	—0·9	† 98·1	91·1	24	0	52	10	34	53	29·2	† 95·4	91·1	G.S.J.	925·21	·36888	·36885	+·00003	·36886			
,,	,,	15	18	2·8574	2·35	29·6	,,	90·6	91·1	23	59	47	10	34	35	29·3	92·2	91·1	G.S.J.	924·74	·36891	·36883	+·00008	·36887			
May	4	12	5	2·8554	2.14	29·2	—0·9	86·4	92·0	23	59	21	10	34	14	28·8	85·7	92·0	N.	925·02	·36924	·36922	+·00002	·36923			
,,	,,	15	57	2·8581	2·02	29·7	,,	76·7	92·1	23	59	2	10	34	15	29·3	78·4	92·1	N.	924·36	·36894	·36888	+·00006	·36891			
,,	11	11	24	2·8560	2·14	29·7	—0·7	70·1	92·9	23	59	25	10	34	3	29·7	70·0	93·0	N.	925·08	·36912	·36916	−·00004	·36914			
,,	,,	15	22	2·8579	2·16	30·3	,,	63·1	93·0	23	59	32	10	34	27	29·9	64·9	93·0	N.	924·80	·36889	·36882	+·00007	·36885			
,,	18	10	9	2·8563	2·17	30·1	—0·9	Scale reading		23	58	20	10	33	52	29·6	Scale reading		N.	924·83	·36926	·36922	+·00004	·36924			
,,	,,	12	10	2·8570	2·08	29·8	,,	not available.		23	57	30	10	33	40	29·7	not available.		N.	924·36	·36923	·36915	+·00008	·36919			
,,	25	11	29	2·8568	2·13	29·8	—0·7	60·0	94·9	24	0	9	10	34	25	29·7	58·6	94·9	N.	925·10	·36894	·36896	−·00002	·36895			
,,	,,	15	13	2·8589	2·11	30·8	,,	53·4	94·9	23	59	20	10	34	26	30·5	54·5	95·0	N.	924·70	·36878	·36870	+·00008	·36874			
June	1	12	30	2·8576	2·04	30·0	−1·0	42·9	95·0	24	0	8	10	34	37	29·6	40·3	95·0	G.S.J.	924·91	0·36887	0·36882	+·00005	0·36884			
,,	,,	15	15	2·8588	2·05	30·5	,,	36·1	95·0	24	0	6	10	34	23	30·1	38·1	95·0	G.S.J.	924·66	·36871	·36873	−·00002	·36872			
,,	8	12	32	2·8573	2·07	29·7	−1·0	26·7	95·1	24	0	5	10	34	31	29·6	27·6	95·1	G.S.J.	924·89	·36888	·36886	+·00002	·36887			
,,	,,	15	27	2·8579	2·04	29·4	,,	22·2	95·0	24	59	36	10	34	17	29·7	26·1	95·0	G.S.J.	924·51	·36882	·36882	·00000	·36882			
,,	15	12	40	2·8541	1·91	27·6	−0·8	21·6	93·6	24	1	21	10	34	51	26·9	19·6	93·6	G.S.J.	925·23	·36922	·36925	−·00003	·36923			
,,	,,	15	18	2·8559	2·02	27·3	,,	**7·5**	93·8	24	1	25	10	35	5	27·1	**13·2**	93·8	G.S.J.	924·70	·36894	·36891	+·00003	·36892			
,,	22	12	16	2·8555	1·98	28·9	−0·8	† 107·5	92·2	24	0	50	10	34	31	28·9	† 103·4	92·3	G.S.J.	925·32	·36903	·36910	−·00007	·36906			
,,	,,	15	20	2·8581	2·04	29·3	,,	95·7	92·2	24	0	50	10	34	55	28·8	98·2	92·3	G.S.J.	924·66	·36873	·36869	+·00004	·36871			
,,	29	12	38	2·8564	2·16	29·3	−1·0	95·1	91·8	23	59	51	10	34	30	29·1	92·7	91·8	G.S.J.	924·93	·36903	·36899	+·00004	·36901			
,,	,,	15	33	2·8581	2 12	29·3	,,	85·3	91·8	23	59	50	10	34	31	28·8	88·4	91·8	G.S.J.	924·32	·36883	·36878	+·00005	·36880			
July	6	12	28	2·8545	1·99	27·7	−1·3	93·2	89·8	23	59	21	10	34	18	27·3	92·9	89·8	G.S.J.	924·70	·36937	·36933	+·00004	·36935			
,,	,,	15	37	2·8562	2·10	27·4	,,	82·6	89·9	24	0	16	10	34	45	27·3	86·1	89·9	G.S.J.	924·34	·36903	·36894	+·00009	·36898			
,,	13	12	46	2·8562	1·92	29·0	−1·3	82·3	89·7	23	58	6	10	33	46	29·1	79·9	89·7	G.S.J.	924·44	·36926	·36922	+·00004	·36924			
,,	,,	15	40	2·8580	2·03	29·5	,,	72·6	89·7	23	58	45	10	33	54	29·3	76·3	89·7	G.S.J.	924·14	·36896	·36896	·00000	·36896			
,,	20	12	34	2·8550	2·01	28·7	−1·8	79·6	89·6	23	58	41	10	34	2	28·1	78·9	89·6	G.S.J.	924·72	·36940	·36935	+·00005	·36937			
,,	,,	15	34	2·8573	2·10	28·5	,,	64·2	89·5	23	58	54	10	34	19	28·4	73·7	89·6	G.S.J.	924·10	·36902	·36891	+·00011	·36896			
,,	27	12	32	2·8575	2·22	29·4	−1·5	57·2	89·6	23	59	36	10	34	35	29·1	56·4	89·6	G.S.J.	924·57	·36892	·36882	+·00010	·36887			
,,	,,	15	18	2·8590	2·21	29·6	,,	50 6	89·7	24	0	33	10	34	36	29·3	53·7	89 6	G.S.J.	924·36	·36862	·36863	−·00001	·36862			
August	3	12	34	2·8570	2·13	28·6	−1·6	52·3	90·0	23	57	41	10	33	21	28·5	54·4	90·0	G.S.J.	923·74	·36921	·36923	−·00002	·36922			
,,	,,	15	12	2·8579	1·99	28·8	,,	48·5	90·0	23	59	11	10	34	20	28·7	51·0	90.0	G.S.J.	924·12	·36892	·36884	+·00008	·36888			
,	10	12	46	2·8558	2·02	27·9	−2·9	50·7	89·0	23	59	27	10	34	33	27·7	49·0	89·0	G.S.J.	924·49	·36916	·36906	+·00010	·36911			
,,	,,	15	5	2·8568	2·02	27·9	,,	42·2	89·0	24	0	6	10	34	41	27·8	45·1	89·0	G.S.J.	924·34	·36895	·36888	+·00007	·36891			
,,	17	12	30	2·8568	2·00	28·6	−2·1	38·2	89·0	23	59	49	10	34	22	28·6	37·7	89·0	G.S.J.	924·53	·36897	·36896	+·00001	·36896			
,,	,,	15	13	2·8581	2.05	28·8	,,	**32·3**	89·0	24	0	20	10	34	30	28·7	**34·5**	89·0	G.S.J.	924·27	·36874	·36877	−·00003	·36875			
,,	24	12	19	2·8577	2·19	29·0	−0·5	† 83·1	89·2	23	59	32	10	34	2	28·9	† 82·8	89·2	G.S.J.	924·21	·36889	·36894	−·00005	·36891			
,,	,,	15	8	2·8581	2·31	29·4	,,	81·6	89·3	23	59	36	10	34	27	29·1	82·1	89·3	G.S.J.	924·34	·36884	·36878	+·00006	·36881			
,,	31	12	4	2·8580	1·90	28·6	−1·8	74·8	89·3	23	59	55	10	34	18	28·4	76·6	89·3	G.S.J.	924·10	·36883	·36886	−·00003	·36884			
,,	,,	15	11	2·8586	1·86	28·9	,,	71·3	89·4	23	59	47	10	34	37	28·6	73.0	89·4	G.S.J.	924·12	·36878	·36870	+·00008	·36874			

† Readjustment of the M. F. Magnetograph.

1904. Date.	Civil Time, Mean.	Time of one Vibration.	Effect of 90° Torsion.	Temperature	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph.		Angle of Deflection.				Corresponding Mean Reading of H. F. Magnetograph.		Observer.	Calculated Results in C. G. S. Units.					Corrected Monthly Mean Values of X.
								Distance.							Values of m.	Values of X.			Observed Monthly Mean Values of X.	
						Scale Reading.	Thermometer.	23 Cms.	30 Cms.	Temperature	Scale Reading.	Thermometer.			From Deflections at distance.		Difference.	Mean.		
															23 Cms. X_{23}	30 Cms. (X_{30})	$X_{23}-X_{30}$	$\frac{X_{23}+X_{30}}{2}$		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div.	°	s.		°	° ′ ″	° ′ ″	°		°								
*Sept. 7	12 26	2·8563	2·01	28·7	−2·3	73·6	89·8	23 58 59	10 33 54	28·8	71·9	89·8	G.S.J.	924·46	·36914	·36916	−·00002	·36915		
,, ,,	15 6	2·8578	2·00	28·8	,,	68·2	89·8	23 59 1	10 34 1	28·8	69·7	89·8	G.S.J.	924·02	·36894	·36894	·00000	·36894		
,, 14	12 38	2·8563	1·77	27·4	−2·3	66·8	89·5	24 0 13	10 34 26	27·0	65·9	89·5	G.S.J.	924·19	·36905	·36907	−·00002	·36906		
,, ,,	15 12	2·8567	1·81	27·0	,,	60·7	89·6	24 0 10	10 34 40	26·9	62·9	89·6	G.S.J.	924·04	·36898	·36893	+·00005	·36895	0·36898	0·36880
,, 21	12 33	2·8568	1·70	28·4	−3·6	61·9	89·7	23 58 42	10 33 44	28·1	61·2	89·7	G.S.J.	924·00	·36916	·36919	−·00003	·36917		
,, ,,	15 9	2·8580	1·79	28·4	,,	56·1	89·7	23 59 1	10 33 50	28·1	58·0	89·7	G.S.J.	923·68	·36895	·36899	−·00004	·36897		
,, 28	12 34	2·8587	1·75	29·4	−3·4	49·3	89·9	23 59 4	10 34 4	28·8	47·0	89·9	G.S.J.	923·91	·36888	·36887	+·00001	·36887		
,, ,,	15 17	2·8594	1·82	29·0	,,	42·8	89·8	23 58 57	10 34 7	28·9	44·2	89·8	G.S.J.	923·63	·36876	·36871	+·00005	·36873		
October 5	12 5	2·8589	1·93	29·8	−3·4	44·2	90·1	23 57 34	10 33 23	29·9	43·1	90·1	G.S.J.	923·70	·36896	·36896	·00000	·36896		
,, ,,	15 8	2·8595	2·09	29·9	,,	38·3	90·1	23 57 46	10 33 37	29·8	38·3	90·1	G.S.J.	923·57	·36886	·36882	+·00004	·36884		
,, 12	12 39	2·8577	2·05	29·0	−3·6	† 98·3	90·6	23 58 5	10 33 42	29·3	† 95·6	90·6	G.S.J.	923·93	·36902	·36899	+·00003	·36900		
,, ,,	15 16	2·8593	2·01	28·8	,,	89·9	90·6	23 59 19	10 34 6	28·9	92·1	90·6	G.S.J.	923·63	·36869	·36870	−·00001	·36869	0·36892	0·36876
,, 19	12 35	2·8587	2·00	30·6	−3·3	92·1	90·7	23 57 9	10 33 15	30·2	91·0	90·7	G.S.J.	923·87	·36907	·36906	+·00001	·36906		
,, ,,	15 19	2·8597	2·15	30·3	,,	86·0	90·7	23 57 32	10 33 14	30·4	88·3	90·7	G.S.J.	923·55	·36884	·36888	−·00004	·36886		
,, 26	12 24	2·8577	1·99	29·9	−3·4	88·6	90·5	23 57 35	10 33 32	29·8	85·2	90·5	G.S.J.	924·12	·36912	·36909	+·00003	·36910		
,, ,,	15 11	2·8590	2·12	29·8	,,	79·0	90·6	23 58 26	10 33 42	30·1	80·2	90·6	G.S.J.	923·93	·36882	·36883	−·00001	·36882		
November 2	12 37	2·8595	2·19	30·6	−3·3	77·7	90·6	23 57 35	10 33 34	29·9	75·3	90·6	G.S.J.	923·70	·36893	·36888	+·00005	·36890		
,, ,,	15 14	2·8601	2·09	30·0	,,	71·2	90·7	23 58 11	10 33 32	30·1	72·9	90·7	G.S.J.	923·51	·36871	·36876	−·00005	·36873		
,, 9	12 42	2·8581	2·07	28·1	−3·4	72·8	89·4	23 59 24	10 34 11	27·8	70·9	89·5	G.S.J.	923·63	·36887	·36887	·00000	·36887		
,, ,,	15 11	2·8587	2·32	28·2	,,	66·9	89·6	23 59 15	10 33 56	28·4	67·9	89·6	G.S.J.	923·44	·36875	·36880	−·00005	·36877		
,, 16	12 47	2·8602	2·35	28·9	−3·3	54·4	89·0	23 59 14	10 34 21	30·3	51·1	89·0	G.S.J.	923·70	·36844	·36837	+·00007	·36840	0·36877	0·36876
,, ,,	15 29	2·8611	2·16	29·8	,,	56·3	89·0	23 59 54	10 34 17	30·6	53·0	89·0	G.S.J.	923·78	·36832	·36834	−·00002	·36833		
,, 23	12 36	2·8574	2·37	27·6	−3·5	64·6	88·0	23 59 32	10 34 11	27·6	61·4	88·0	G.S.J.	923·70	·36890	·36891	−·00001	·36890		
,, ,,	15 24	2·8584	2·54	27·6	,,	57·9	88·1	23 59 31	10 34 19	27·7	58·6	88·0	G.S.J.	923·42	·36876	·36872	+·00004	·36874		
,, 30	12 23	2·8564	2·42	26·7	−3·9	63·9	87·0	23 58 46	10 33 53	26·7	62·6	87·1	G.S.J.	923·40	·36913	·36913	·00000	·36913		
,, ,,	15 18	2·8576	2·39	26·7	,,	58·2	87·2	23 58 46	10 33 53	26·8	60·2	87·2	G.S.J.	923·04	·36897	·36897	·00000	·36897		
December 7	12 35	2·8572	2·37	26·8	−2·7	57·3	86·2	24 0 12	10 34 21	26·4	53·2	86·2	N.	923·49	·36890	·36894	−·00004	·36892		
,, ,,	15 23	2·8587	2·41	26·8	,,	48·4	86·3	24 1 34	10 34 52	26·4	49·1	86·2	N.	923·40	·36854	·36860	−·00006	·36857		
,, 14	12 19	2·8566	2·33	25·9	−3·2	57·5	86·0	23 58 40	10 33 55	26·0	56·8	86·0	N.	923·00	·36911	·36910	+·00001	·36910		
,, ,,	15 22	2·8579	2·17	26·2	,,	51·2	86·0	23 58 45	10 34 0	25·9	52·6	86·0	N.	922·70	·36898	·36894	+·00004	·36896	0·36889	0·36886
,, 21	12 6	2·8577	2·17	26·7	−3·1	49·1	85·6	24 0 1	10 34 18	26·8	46·0	85·7	N.	923·36	·36881	·36884	−·00003	·36882		
,, ,,	15 10	2·8594	2·05	26·8	,,	39·3	85·8	24 0 15	10 34 37	26·7	41·3	85·8	N.	923·00	·36860	·36856	+·00004	·36858		
,, 28	12 23	2·8572	2·24	26·3	−3·2	47·9	85·1	23 57 20	10 33 46	26·0	45·6	85·1	G.S.J.	922·66	·36923	·36910	+·00013	·36916		
,, ,,	15 12	2·8584	2·30	26·2	,,	40·8	85·2	23 57 26	10 33 41	26·2	42·2	85·2	G.S.J.	922·30	·36905	·36894	+·00011	·36899		
														The mean value of the Horizontal Force for the year 1904 =					0·36891	0·36879

* The place of observation of Inst. No. 3 was finally transferred from the second to the first floor.

† Readjustment of the H. F. Magnetograph.

Absolute Magnetical Observations, Alibag—Table II.

OBSERVATIONS OF ABSOLUTE DECLINATION, 1904.

Taken with Magnetometer No. 7 (T. Cooke and Sons).

1904. Date.	Alibág Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Kennery Light House.	Torsion. Mean.	Effect of 90°	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Observed Absolute Easterly Declination.	Corrected mean monthly Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″	° ′ ″
JAN. 21	12 32	55·6		85 44 42	222 28 45	0		G.S.J.	16·00	1 9 22			
,, 28	12 44	55·6		85 44 57	222 29 5	0		S.	16·40	1 9 17		1 9 19	1 10 57
FEB. 4	13 46	55·6		85 47 22	222 30 0	0		G.S.J.	17·55	1 10 47			
,, 11	12 30	55·6		85 46 22	222 29 45	0		G.S.J.	17·20	1 10 2			
,, 18	12 40	55·6		85 45 37	222 29 35	0		G.S.J.	16·80	1 9 27	17·04	1 9 57	1 10 35
,, 25	12 37	55·6		85 45 12	222 29 5	0		G.S.J.	16·60	1 9 32			
MAR. 3	12 20	55·6		85 44 57	222 29 15	0		S.	16·35	1 9 7			
,, 10	13 10	55·6		85 45 40	222 29 0	0		G.S.J.	17·00	1 10 5			
,, 17	12 30	55·6		85 46 0	222 29 0	0		G.S.J.	†52·10	1 10 25	†	1 10 4	1 10 45
,, 25	8 18	55·6		85 48 0	222 29 0	0		G.S.J.	53·60	1 12 25			
,, 31	12 44	55·6		85 43 55	222 29 0	0		G.S.J.	49·00	1 8 20			
APR. 7	12 44	55·6		85 44 50	222 29 20	0		G.S.J.	43·70	1 8 55			
,, 14	12 40	55·6		85 45 40	222 29 20	0		G.S.J.	44·20	1 9 45			
,, 21	12 52	55·6		85 44 55	222 29 15	0		G.S.J.	43·20	1 9 5	43·22	1 8 56	1 10 30
,, 28	12 47	55·6		85 43 50	222 29 15	0		G.S.J.	41·80	1 8 0			
MAY 5	12 19	55·6		85 44 25	222 29 35	0		N.	43·00	1 8 15			
,, 12	11 40	55·6		85 43 30	222 29 40	0		N.	42·10	1 7 15			
,, 19	13 28	55·6		85 45 15	222 29 20	0		N.	†34·40	1 9 20	†	1 8 24	1 9 54
,, 26	12 19	55·6		85 45 0	222 29 40	0		N.	34·30	1 8 45			
JUNE 2	13 4	55·6		85 44 0	222 29 5	0		G.S.J.	33·70	1 8 20			
,, 9	13 6	55·6		85 43 55	222 29 5	0		G.S.J.	33·00	1 8 15			
,, 16	12 54	55·6		85 43 20	222 29 00	0		G.S.J.	32·50	1 7 45	32·76	1 7 59	1 9 26
,, 23	13 4	55·6		85 42 45	222 29 10	0		G.S.J.	31·50	1 7 0			
,, 30	12 47	55·6		85 44 10	222 29 00	0		G.S.J.	33·10	1 8 35			
JULY 7	12 26	55·6		85 42 45	*131 27 40	0		G.S.J.	32·30	1 7 8			
,, 14	12 39	55·6		85 43 30	222 29 00	0		G.S.J.	32·00	1 7 55			
,, 21	13 13	55·6		85 41 40	222 29 0	0		G.S.J.	30·60	1 6 5	31·72	1 7 21	1 9 3
,, 28	12 43	55·6		85 43 55	222 29 5	0		G.S.J.	32·00	1 8 15			
AUG. 4	13 6	55·6		85 42 20	*131 28 0	0		G.S.J.	30·10	1 6 23			
,, 11	13 15	55·6		85 43 00	222 29 10	0		G.S.J.	30·10	1 7 15			
,, 18	12 13	55·6		85 43 0	222 29 0	0		G.S.J.	28·70	1 7 25	†	1 6 41	1 8 39
,, 25	12 42	55·6		85 41 5	222 28 50	0		G.S.J.	†45·30	1 5 40			
SEP. 1	13 29	55·6		85 41 45	222 28 45	0		G.S.J.	45·40	1 6 25			
,, 8	12 45	55·6		85 41 10	222 29 0	0		G.S.J.	44·90	1 5 35			
,, 15	12 58	55 6		85 41 35	222 29 15	0		G.S.J.	44·80	1 5 45	45·14	1 6 9	1 8 35
,, 22	12 46	55·6		85 42 20	222 29 5	0		G.S.J.	45·50	1 6 40			
,, 29	13 2	55·6		85 41 55	222 29 0	0		G.S.J.	45·10	1 6 20			
OCT. 6	12 41	55·6		85 42 50	222 29 0	0		G.S.J.	45·80	1 7 15			
,, 13	12 50	55·6		85 42 35	222 28 50	0		G.S.J.	45·70	1 7 10			
,, 20	12 53	55·6		85 43 0	222 28 50	0		G.S.J.	46·50	1 7 35	46·50	1 7 51	1 8 41
,, 27	12 50	55·6		85 45 15	222 29 15	0		G.S.J.	48·00	1 9 25			
NOV. 3	12 26	55·6		85 44 50	222 29 15	0		G.S.J.	47·80	1 9 0			
,, 10	12 52	55·6		85 45 35	222 28 50	0		G.S.J.	48·80	1 10 10			
,, 17	13 9	55·6		85 46 30	222 29 10	0		G.S.J.	49·50	1 10 45	48·52	1 9 44	1 9 5
,, 24	12 56	55·6		85 44 15	222 28 40	0		G.S.J.	48·00	1 9 0			
DEC. 1	12 39	55·6		85 43 10	222 28 30	0		G.S.J.	47·20	1 8 5			
,, 8	13 16	55·6		85 44 20	222 29 0	0		N.	48·70	1 8 45			
,, 15	12 50	55·6		85 43 30	222 29 0	0		N.	47·50	1 7 55	47·60	1 7 56	1 8 3
,, 22	11 50	55·6		85 42 10	222 29 0	0		N.	46·60	1 6 35			
,, 29	13 3	55·6		85 43 15	222 28 20	0		G.S.J.	48·00	1 8 20			
										The Mean Declination for the year 1904 =		1 8 22	1 9 31

NOTE.—As in the Magnet of instrument No. 7, there is no provision for observing the scale in the inverted position a constant correction has been once for all determined from a large number of experiments and applied throughout to the Declination obtained from the erect position.

* As the Kennery Light House was not visible, the known azimuth of a fixed mark in the niche of the wall has been made use of.

† Readjustment of the Declination Magnetograph.

Absolute Magnetical Observations, Alibag—Table IIa.

Observations of absolute Declination, 1904.

Taken with Magnetometer No. 3 (Cambridge Scientific Instrument Co.).

1904. Date.	Alibág Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Kennery Light House.	Torsion. Mean.	Effect of 90.°	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Observed Absolute Easterly Declination.	Corrected Mean Monthly Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″	° ′ ″
JAN. 7	12 23	35·55	35·20	282 58 40	59 42 10	0	...	S.	...	1 10 14			
„ 14	12 42	35·60	35·27	282 59 20	59 41 5	10W.	0·53	G.S.J.	...	1 12 5			
„ 21	11 22	35·55	35·45	282 57 35	59 41 30	0	...	G.S.J.	15·40	1 9 36	...	1 10 33	1 11 46
„ 28	11 46	35·55	35·35	282 58 25	59 41 45	0	...	S.	16·35	1 10 16			
FEB. 4	12 34	35·52	35·40	282 57 30	59 40 55	0	...	G.S.J.	16·51	1 10 7			
„ 11	11 9	35·47	35·52	283 0 40	59 42 40	0	...	G.S.J.	18·05	1 11 23	17·02	1 10 17	1 10 50
„ 18	11 25	35·62	35·32	282 58 35	59 42 35	0	...	G.S.J.	16·70	1 9 42			
„ 25	11 18	35·42	35 50	282 57 15	59 40 40	0	...	G.S.J.	16·84	1 9 55			
MARCH 3	11 17	35·51	35·39	282 57 35	59 41 20	0	...	S.	16·64	1 9 47			
„ 10	11 45	35·47	35·67	282 59 45	59 42 40	0	...	G.S.J.	17·57	1 10 19			
„ 17	11 25	35 45	35·70	282 58 20	59 40 40	0	...	G.S.J.	†52·65	1 10 51	†	1 10 14	1 10 40
„ 25	7 18	35 55	35·37	282 59 10	59 41 0	0	...	G.S.J.	53·05	1 11 45			
„ 31	11 41	35·47	35·52	282 56 30	59 41 25	0	...	G.S.J.	49·00	1 8 28			
APRIL 7	11 47	35·45	35·57	282 56 20	59 41 15	0	...	G.S.J.	43·40	1 8 23			
„ 14	11 40	35·52	35·52	282 57 10	59 41 25	0	...	G.S.J.	43·95	1 9 10			
„ 21	11 42	35·45	35·79	282 57 15	59 41 20	10E.	0·85	G.S.J.	43 75	1 8 50	43·17	1 8 28	1 9 58
„ 28	11 39	35·55	35·47	282 56 30	59 42 30	0	...	G.S.J.	41·60	1 7 30			
MAY 5	11 21	35·55	35·70	282 57 20	59 42 30	0	...	N.	43·20	1 8 7			
„ 12	10 44	35·45	35·60	282 57 20	59 42 50	0	...	N.	42 50	1 7 47	†	1 8 45	1 9 46
„ 19	12 43	35·50	35·66	282 58 10	59 42 25	0	...	N.	†34·30	1 9 1			
„ 26	11 17	35·50	35·72	282 58 55	59 42 0	0	...	N.	35·25	1 10 7			
JUNE 2	11 49	35·47	35·80	282 57 25	59 41 25	0	...	G.S.J.	34 00	1 9 7			
„ 9	11 57	35·42	35·90	282 56 35	59 41 25	0	...	G.S.J.	32·70	1 8 7			
„ 16	11 56	35·50	35·90	282 56 50	59 41 20	0	...	G.S.J.	33·20	1 8 32	33·32	1 8 49	1 9 51
„ 23	11 47	35·52	36·17	282 57 40	59 41 20	0	...	G.S.J.	33·20	1 9 8			
„ 30	11 44	35·50	36·15	282 57 55	59 41 30	0	...	G.S.J.	33·50	1 9 13			
JULY 7	11 23	35·42	36·07	282 57 30	*328 40 55	0	...	G.S.J.	33·20	1 8 1			
„ 14	11 30	35·37	36 05	282 58 00	59 41 40	0	...	G.S.J.	33·05	1 9 6			
„ 21	12 13	35·35	36·20	282 55 35	59 41 30	0	...	G.S.J.	30·75	1 6 42	32 29	1 8 11	1 9 15
„ 28	11 40	35·50	35 87	282 57 20	59 41 30	0	...	G.S.J.	32·15	1 8 54			
AUG. 4	12 4	35·47	35·92	282 55 10	*328 40 30	0	...	G.S.J.	29·95	1 6 18			
„ 11	11 53	35·52	35·92	282 56 15	59 41 20	10E.	0·62	G.S.J.	30·10	1 7 49	†	1 7 2	1 9 10
„ 18	11 27	35·50	36 00	282 55 40	59 40 35	0	...	G.S.J.	28·65	1 8 1			
„ 25	11 54	35·55	35·90	282 53 30	59 40 35	0	...	G.S.J.	†44·70	1 6 1			
SEPT. 1	12 16	35·50	35·80	276 33 55	53 21 10	0	...	G.S.J.	45·55	1 5 53			
„ 8	11 58	35·52	35·95	276 34 20	53 22 40	0	...	G.S.J.	44·45	1 4 41			
„ 15	12 4	35·52	35·90	276 31 55	53 20 35	0	...	G.S.J.	44·10	1 4 23	44·92	1 5 9	1 7 40
„ 22	11 52	35·50	36·02	276 33 50	53 21 0	0	...	G.S.J.	45·60	1 5 45			
„ 29	12 10	35·47	35·87	276 34 30	53 22 30	0	...	G.S.J.	44·90	1 5 2			
OCT. 6	11 53	35·40	36·00	276 33 50	53 21 0	0	...	G.S.J.	45·55	1 5 41			
„ 13	11 47	35·45	36·05	276 33 35	53 21 0	5W.	0·64	G.S.J.	45·10	1 5 30			
„ 20	12 6	35·55	36·15	276 33 15	53 20 50	0	...	G.S.J.	45·40	1 5 16	46·01	1 6 8	1 7 17
„ 27	11 52	35·50	35·95	276 35 15	53 20 10	0	...	G.S.J.	48·00	1 8 5			
NOV. 3	11 36	35·52	35·85	276 36 50	53 22 50	0	...	G.S.J.	47·05	1 7 7			
„ 10	12 5	35·57	35·82	276 37 25	53 22 20	0	...	G.S.J.	48·25	1 8 16			
„ 17	12 17	35·45	36·25	276 38 10	53 22 30	0	...	G.S.J.	49·15	1 8 19	48·00	1 7 38	1 7 29
„ 24	11 42	35·55	36·02	276 34 20	53 20 30	0	...	G.S.J.	47·55	1 6 49			
DEC. 1	11 58	35·45	36·20	276 34 20	53 20 30	0	...	G.S.J.	47·00	1 6 33			
„ 8	12 3	35·50	36·20	276 37 10	53 22 30	0	...	N.	47·95	1 7 25			
„ 15	11 58	35 40	36·29	276 36 15	53 21 35	0	...	N.	47·95	1 7 15	47·41	1 6 42	1 6 59
„ 22	11 6	35·50	36·05	276 33 10	53 20 0	0	...	N.	46·75	1 6 4			
„ 29	12 9	35·45	36·20	276 35 40	53 22 15	5W.	0·83	G.S.J.	47·40	1 6 13			
									The Mean Declination for the year 1904 =		° ′ ″	° ′ ″	° ′ ″
												1 8 10	1 9 14

* As the Kennery Light House was not visible the known azimuth of a fixed mark in the niche of the wall has been made use of.
† Readjustment of the Declination Magnetograph.

Absolute Magnetical Observations, Alibag—Table III.

OBSERVATIONS OF INCLINATION, 1904.

Taken with Dip Circle No. 160 (Cambridge Scientific Instrument Co.) and two 3½ inch Needles Nos. 1 and 2 by Dover.

1904. Date.	Alibag Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A Face of Circle. East.	A Face of Circle. West.	B Face of Circle. East.	B Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′			° ′
JAN. 1	14 28	15 35	G.S.J.	1	22 57·2	22 57·2	22 47·1	22 51·9	22 53·3		
,, ,,	15 47	16 50	G.S.J.	2	22 52·5	23 0·8	22 47·2	22 54·3	22 53·7		
,, 5	11 30	12 31	S.	1	22 57·0	22 55·3	22 43·0	22 50·4	22 51·4	No. 1	
,, ,,	12 50	14 0	S.	2	22 45·5	22 58·6	22 48·7	22 55·7	22 52·1		
,, 8	14 15	15 20	G.S.J.	1	22 56·7	22 56·7	22 46·2	22 49·4	22 52·2	22 52·1	
,, ,,	15 34	16 39	G.S.J.	2	22 48·4	22 59·3	22 45·9	22 54·1	22 51·9		
,, 12	11 35	12 46	G.S.J.	1	22 55·7	22 58·4	22 46·2	22 49·1	22 52·3		
,, ,,	12 58	14 2	G.S.J.	2	22 47·6	22 59·0	22 46·4	22 54·9	22 52·0		
,, 15	14 20	15 32	G.S.J.	1	22 55·2	22 56·9	22 45·8	22 51·3	22 52·3		
,, ,,	15 50	16 57	G.S.J.	2	22 48·4	22 57·1	22 46·6	22 53·5	22 51·4		22 52·0
,, 19	11 27	12 42	G.S.J.	1	22 53·9	22 51·7	22 46·6	22 49·7	22 50·5		
,, ,,	12 55	13 57	G.S.J.	2	22 47·9	22 57·8	22 46·3	22 53·6	22 51·4	No. 2	
,, 22	13 46	14 53	S.	1	22 53·2	22 56·5	22 47·6	22 52·2	22 52·4		
,, ,,	15 5	16 10	S.	2	22 47·1	22 58·1	22 47·9	22 54·1	22 51·8	22 51·9	
,, 26	11 15	12 26	S.	1	22 57·4	22 54·9	22 45·9	22 47·6	22 51·4		
,, ,,	12 42	13 53	S.	2	22 47·1	22 56·7	22 46·3	22 52·0	22 50·5		
,, 29	14 30	15 39	G.S.J.	1	22 57·6	22 58·4	22 47·8	22 48·1	22 53·0		
,, ,,	15 50	17 7	G.S.J.	2	22 49·0	23 0·1	22 46·6	22 54·4	22 52·5		
FEB. 2	11 37	12 50	G.S.J.	1	22 57·6	22 54·9	22 47·8	22 51·2	22 52·9		
,, ,,	13 3	14 6	G.S.J.	2	22 49·4	22 59·1	22 47·4	22 55·6	22 52·9		
,, 5	14 32	15 41	G.S.J.	1	22 57·7	22 57·6	22 48·9	22 51·2	22 53·8	No. 1	
,, ,,	15 51	17 12	G.S.J.	2	22 47·9	22 57·2	22 47·9	22 54·2	22 51·8		
,, 9	12 20	13 25	G.S.J.	1	22 54·9	22 58·2	22 45·7	22 50·5	22 52·3	22 52·6	
,, ,,	13 36	14 39	G.S.J.	2	22 45·9	22 56·5	22 46·2	22 52·3	22 50·2		
,, 13	14 25	15 46	G.S.J.	1	22 56·7	22 57·9	22 42·9	22 51·4	22 52·2		
,, ,,	16 0	17 5	G.S.J.	2	22 44·6	22 55·2	22 46·0	22 53·0	22 49·7		
,, 16	11 35	12 52	G.S.J.	1	22 53·1	22 59·0	22 44·0	22 52·2	22 52·1		22 52·0
,, ,,	13 5	14 10	G.S.J.	2	22 48·6	22 57·3	22 46·2	22 53·3	22 51·3		
,, 19	14 25	15 33	G.S.J.	1	22 55·1	22 56·6	22 47·2	22 51·2	22 52·5		
,, ,,	15 45	17 0	G.S.J.	2	22 48·2	22 57·9	22 46·6	22 53·4	22 51·5		
,, 23	11 28	12 38	G.S.J.	1	22 55·1	22 57·7	22 41·2	22 52·9	22 51·7	No. 2	
,, ,,	12 50	14 0	G.S.J.	2	22 47·4	22 57·9	22 46·4	22 53·4	22 51·3		
,, 26	14 15	15 38	G.S.J.	1	22 56·5	22 58·9	22 47·2	22 49·5	22 53·0	22 51·4	
,, ,,	15 51	16 58	G.S.J.	2	22 50·2	22 59·1	22 48·6	22 53·1	22 52·7		
MAR. 1	11 30	12 41	G.S.J.	1	22 54·4	22 56·2	22 45·9	22 48·3	22 51·2		
,, ,,	12 54	14 18	G.S.J.	2	22 49·0	22 55·6	22 47·7	22 52·6	22 51·2		
,, 4	14 21	15 35	S.	1	22 59·1	22 58·7	22 45·7	22 47·1	22 52·6	No. 1	
,, 5	15 50	17 1	S.	2	22 49·2	22 57·7	22 48·0	22 52·5	22 51·8		
,, 8	11 25	12 33	G.S.J.	1	22 52·4	22 58·6	22 41·2	22 48·8	22 50·2	22 51·1	
,, ,,	12 45	13 52	G.S.J.	2	22 46·5	22 54·6	22 45·9	22 53·2	22 50·0		
,, 11	14 30	15 50	G.S.J.	1	22 56·5	22 55·4	22 47·9	22 49·0	22 52·2		
,, ,,	16 0	17 7	G.S.J.	2	22 51·1	22 59·7	22 48·8	22 53·7	22 53·3		
,, 15	11 30	12 54	G.S.J.	1	22 52·6	22 56·2	22 43·9	22 47·9	22 50·1		
,, ,,	13 6	14 14	G.S.J.	2	22 47·5	22 57·1	22 45·6	22 54·3	22 51·1		22 51·2
,, 18	14 23	15 33	G.S.J.	1	22 55·5	22 53·1	22 46·7	22 47·9	22 50·8		
,, ,,	15 44	16 52	G.S.J.	2	22 50·4	22 57·4	22 47·9	22 54·2	22 52·5		
,, 22	11 32	12 38	G.S.J.	1	22 54·1	22 54·4	22 44·7	22 47·4	22 50·1	No. 2	
,, ,,	12 50	13 58	G.S.J.	2	22 47·9	22 56·6	22 48·2	22 50·9	22 50·9		
,, 25	14 23	15 34	G.S.J.	1	22 56·8	22 55·7	22 46·9	22 49·4	22 52·2	22 51·3	
,, ,,	15 45	16 53	G.S.J.	2	22 49·1	22 55·7	22 45·9	22 52·5	22 50·8		
,, 29	11 44	12 54	G.S.J.	1	22 52·4	22 57·2	22 43·6	22 48·2	22 50·3		
,, ,,	13 4	14 14	G.S.J.	2	22 46·6	22 56·2	22 43·4	22 55·4	22 50·4		

1904. Date.	Bombay Civil Time (0 to 24 hours.) At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′			° ′
APRIL 1	14 22	15 31	G.S.J.	1	22 59·7	23 3·1	22 50·2	22 55·2	22 57·0		
,, ,,	15 41	16 41	G.S.J.	2	22 52·6	23 2·2	22 50·4	22 59·1	22 56·1		
,, 5	11 43	12 54	G.S.J.	1	22 53·2	22 57·7	22 44·2	22 50·9	22 51·5		
,, ,,	13 5	14 14	G.S.J.	2	22 49·6	22 58·6	22 47·7	22 53·4	22 52·3	No. 1	
,, 8	14 21	15 37	G.S.J.	1	22 57·7	23 3·2	22 46·7	22 52·4	22 55·0		
,, ,,	15 47	16 50	G.S.J.	2	22 50·9	22 58·3	22 46·9	22 53·8	22 52·5	22 53·2	
,, 12	11 32	12 40	G.S.J.	1	22 51·7	22 57·8	22 43·9	22 49·3	22 50·7		
,, ,,	12 52	13 54	G.S.J.	2	22 49·4	22 56·1	22 46·4	22 53·1	22 51·2		
,, 15	14 21	15 31	G.S.J.	1	22 56·1	22 57·1	22 45·7	22 50·7	22 52·4		
,, ,,	15 41	16 43	G.S.J.	2	22 50·9	22 59·3	22 47·1	22 54·4	22 52·9		22 53·1
,, 19	11 46	12 58	G.S.J.	1	22 54·1	22 57·7	22 46·8	22 49·2	22 51·9		
,, ,,	13 9	14 16	G.S.J.	2	22 52·7	22 57·2	22 48·6	22 54·9	22 53·3		
,, 22	14 23	15 35	G.S.J.	1	22 56·5	22 59·6	22 46·0	22 50·2	22 53·1		
,, ,,	15 45	16 47	G.S.J.	2	22 50·1	23 0·2	22 45·4	22 55·4	22 52·8	No. 2	
,, 26	11 40	12 51	G.S.J.	1	22 53·1	23 0·7	22 46·1	22 52·0	22 53·0		
,, ,,	13 1	14 15	G.S.J.	2	22 49·0	22 57·2	22 47·0	22 58·9	22 53·0	22 53·0	
,, 29	13 47	14 50	N.	1	22 52·9	23 3·4	22 45·1	22 57·2	22 54·6		
,, ,,	15 0	16 11	N.	2	22 48·4	22 59·1	22 42·9	22 59·7	22 52·5		
MAY 3	10 31	11 48	N.	1	22 51·0	22 59·2	22 45·0	22 52·4	22 51·9		
,, ,,	12 53	14 4	N.	2	22 50·4	22 59·7	22 44·2	22 55·9	22 52·5		
,, 6	14 25	15 30	N.	1	22 56·9	23 1·1	22 46·1	22 53·7	22 54·4		
,, ,,	15 40	17 0	N.	2	22 48·0	23 3·4	22 41·6	22 57·4	22 52·6	No. 1	
,, 10	10 30	11 38	N.	1	22 51·9	22 55·4	22 41·5	22 50·4	22 49·8		
,, ,,	11 49	13 15	N.	2	22 49·4	22 57·1	22 41·6	22 56·5	22 51·1	22 52·6	
,, 13	14 22	15 29	N.	1	22 59·7	23 3·6	22 47·5	22 54·9	22 56·4		
,, ,,	15 39	16 44	N.	2	22 53·1	23 1·9	22 48·3	22 59·2	22 55·6		
,, 17	11 0	12 10	N.	1	22 54·3	22 56·1	22 38·9	22 48·1	22 49·3		
,, ,,	12 20	13 34	N.	2	22 42·5	23 0·7	22 41·4	22 52·0	22 49·1		22 52·7
,, 20	14 28	15 30	N.	1	22 52·9	22 58·0	22 46·4	22 52·2	22 52·4		
,, ,,	15 39	16 42	N.	2	22 50·0	23 3·4	22 46·4	22 55·9	22 53·9		
,, 24	10 25	11 33	N.	1	22 53·7	23 3·9	22 44·5	22 53·0	22 53·8	No. 2	
,, ,,	11 43	12 47	N.	2	22 50·1	23 0·1	22 47·9	22 58·3	22 54·1		
,, 27	14 29	15 30	N.	1	22 54·6	23 1·2	22 41·2	22 51·4	22 52·1	22 52·8	
,, ,,	15 37	16 34	N.	2	22 49·4	23 3·4	22 42·4	22 56·5	22 52·9		
,, 31	11 41	12 50	G.S.J.	1	22 54·4	23 0·1	22 43·8	22 53·8	22 53·0		
,, ,,	13 0	14 2	G.S.J.	2	22 49·3	22 59·5	22 46·5	22 57·6	22 53·2		
JUNE 3	14 22	15 26	G.S.J	1	22 55·7	23 1·6	22 46·0	22 53·9	22 54·3		
,, ,,	15 36	16 46	G.S.J.	2	22 51·4	23 3·7	22 46·5	22 56·8	22 54·6		
,, 7	11 50	12 55	G.S.J.	1	22 56·9	23 2·6	22 44·7	22 52·9	22 54·3		
,, ,,	13 6	14 13	G.S.J.	2	22 53·0	23 0·8	22 46·8	22 57·5	22 54·5	No. 1	
,, 10	14 50	15 47	G.S.J.	1	22 55·6	23 1·2	22 47·0	22 56·2	22 55·0		
,, ,,	15 55	16 51	G.S.J.	2	22 52·9	23 0·2	22 47·4	22 57·6	22 54·5	22 54·5	
,, 14	11 55	13 4	G.S.J.	1	22 52·4	22 59·3	22 44·1	22 53·6	22 52·3		
,, ,,	13 14	14 15	G.S.J.	2	22 51·5	22 56·2	22 47·9	22 54·8	22 52·6		
,, 17	14 22	15 25	G.S.J.	1	22 58·6	23 2·1	22 49·0	22 55·6	22 56·3		22 54·7
,, ,,	15 35	16 40	G.S.J.	2	22 57·4	23 2·9	22 51·4	23 0·1	22 57·9		
,, 21	11 55	12 58	G.S.J.	1	22 55·8	23 1·2	22 45·3	22 53·8	22 54·0		
,, ,,	13 8	14 12	G.S.J.	2	22 55·5	23 0·9	22 47·8	22 57·8	22 55·5	No. 2	
,, 24	14 28	15 32	G.S.J.	1	22 56·9	23 1·8	22 47·5	22 55·8	22 55·5		
,, ,,	15 42	16 57	G.S.J.	2	22 51·9	23 1·6	22 47·9	23 0·0	22 55·3	22 55·0	
,, 28	11 40	12 45	G.S.J.	1	22 58·1	23 0·2	22 46·2	22 52·7	22 54·3		
,, ,,	12 55	13 56	G.S.J.	2	22 54·0	23 1·7	22 47·4	22 57·3	22 55·1		

1904. Date.	Alibag Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JULY 1	14 20	15 22	G.S.J.	1	22 56·2	23 5·3	22 42·7	22 54·6	22 54·7		
,, ,,	15 32	16 33	G.S.J.	2	22 51·9	23 3·7	22 46·2	22 57·9	22 54·9		
,, 5	12 5	13 6	G.S.J.	1	22 56·7	22 58·7	22 43·9	22 53·2	22 53·1		
,, ,,	13 16	14 17	G.S.J.	2	22 56·4	23 3·4	22 45·4	22 57·9	22 55·8	No. 1	
,, 8	14 20	15 23	G.S.J.	1	22 57·9	23 6·2	22 46·2	22 58·0	22 57·1	22 54·8	
,, ,,	15 33	16 34	G.S.J.	2	22 53·4	23 5·4	22 48·9	23 2·2	22 57·5		
,, 12	11 55	13 0	G.S.J.	1	22 54·7	23 4·2	22 42·4	22 53·1	22 53·6		
,, ,,	13 10	14 13	G.S.J.	2	22 53·3	23 2·1	22 47·3	22 58·4	22 55·3		
,, 15	14 15	15 15	G.S.J.	1	22 56·1	23 2·6	22 48·2	22 55·1	22 55·5		22 55·3
,, ,,	15 25	16 28	G.S.J.	2	22 55·9	23 5·3	22 47·1	22 59·4	22 56·9		
,, 19	12 2	13 2	G.S.J.	1	22 54·9	23 2·5	22 43·7	22 54·3	22 53·8		
,, ,,	13 12	14 14	G.S.J.	2	22 53·5	23 1·6	22 45·7	22 57·6	22 54·6		
,, 22	14 20	15 22	G.S.J.	1	22 56·2	23 3·4	22 44·6	22 55·1	22 54·8	No. 2	
,, ,,	15 33	16 34	G.S.J.	2	22 51·6	23 1·4	22 48·1	22 58·0	22 54·8		
,, 26	11 55	13 0	G.S.J.	1	22 57·1	23 3·5	22 44·0	22 53·4	22 54·5	22 55·8	
,, ,,	13 11	14 20	G.S.J.	2	22 51·9	23 1·3	22 48·0	22 59·2	22 55·1		
,, 29	14 18	15 21	G.S.J.	1	22 58·4	23 3·4	22 48·8	22 55·2	22 56·4		
,, ,,	15 30	16 30	G.S.J.	2	22 56·8	23 4·1	22 49·0	22 59·2	22 57·3		
AUGUST 2	11 48	12 53	G.S.J.	1	22 58·1	23 5·7	22 44·4	22 53·3	22 55·4		
,, ,,	13 5	14 13	G.S.J.	2	22 53·4	23 0·6	22 49·7	22 57·2	22 55·2		
,, 5	14 16	15 17	G.S.J.	1	22 59·6	23 0·4	22 47·1	22 56·0	22 55·8		
,, ,,	15 27	16 26	G.S.J.	2	22 54·7	23 4·4	22 46·9	22 59·5	22 56·4		
,, 9	11 28	12 30	G.S.J.	1	22 54·4	23 2·3	22 44·5	22 53·5	22 53·7	No. 1	
,, ,,	12 40	13 40	G.S.J.	2	22 53·2	23 4·0	22 49·5	22 59·2	22 56·5		
,, 12	14 18	15 20	G.S.J.	1	22 53·9	23 4·2	22 44·1	23 2·9	22 56·3	22 54·9	
,, ,,	15 35	16 32	G.S.J.	2	22 51·6	23 7·9	22 48·0	23 2·8	22 57·6		
,, 16	11 58	13 7	G.S.J.	1	22 52·9	22 58·6	22 45·4	22 53·0	22 52·5		22 55·7
,, ,,	13 18	14 18	G.S.J.	2	22 54·5	22 59·9	22 47·7	22 55·9	22 54·5		
,, 19	14 18	15 22	G.S.J.	1	23 0·2	23 0·5	22 51·2	22 54·2	22 56·5		
,, ,,	15 33	16 32	G.S.J.	2	22 55·9	23 5·3	22 51·5	22 57·9	22 57·6		
,, 23	11 52	12 57	G.S.J.	1	22 56·2	23 1·7	22 48·9	22 52·3	22 54·8	No. 2	
,, ,,	13 8	14 14	G.S.J.	2	22 55·1	23 3·7	22 46·5	22 58·7	22 56·0		
,, 26	14 18	15 19	G.S.J.	1	22 54·2	23 2·8	22 46·9	22 57·9	22 55·4	22 56·4	
,, ,,	15 30	16 32	G.S.J.	2	22 57·6	23 8·1	22 45·2	23 0·0	22 57·7		
,, 30	12 0	13 1	G.S.J.	1	22 53·7	23 2·6	22 44·7	22 54·9	22 54·0		
,, ,,	13 12	14 16	G.S.J.	2	22 55·9	23 3·6	22 48·1	22 58·0	22 56·4		
SEPT. *2	14 18	15 21	G.S.J.	1	22 59·0	23 6·7	22 47·1	22 56·1	22 57·2		
,, ,,	15 32	16 31	G.S.J.	2	22 57·6	23 2·9	22 48·4	22 58·3	22 56·8		
,, 6	11 30	12 33	G.S.J.	1	22 53·4	23 0·2	22 47·2	22 52·1	22 53·2		
,, ,,	12 44	13 45	G.S.J.	2	22 55·6	23 2·7	22 47·9	22 56·5	22 55·7	No. 1	
,, 9	14 26	15 25	G.S.J.	1	23 1·2	23 3·9	22 49·4	22 55·8	22 57·6		
,, ,,	15 35	16 32	G.S.J.	2	22 59·3	23 4·4	22 52·0	22 56·8	22 58·1	22 56·1	
,, 13	11 56	13 0	G.S.J.	1	23 2·7	22 55·5	22 52·6	22 48·7	22 54·9		
,, ,,	13 12	14 14	G.S.J.	2	22 56·8	23 0·0	22 49·9	23 0·2	22 56·7		
,, 16	14 18	15 20	G.S.J.	1	23 2·7	22 59·1	22 53·1	22 53·2	22 57·0		22 56·7
,, ,,	15 30	16 33	G.S.J.	2	22 56·1	23 4·7	22 47·4	23 1·8	22 57·5		
,, 20	12 2	13 4	G.S.J.	1	22 54·4	23 0·7	22 48·2	22 55·1	22 54·6		
,, ,,	13 16	14 18	G.S.J.	2	22 55·0	23 5·0	22 48·3	22 58·1	22 56·6		
,, 23	14 18	15 22	G.S.J.	1	22 57·6	23 4·5	22 48·7	22 58·1	22 57·2	No. 2	
,, ,,	15 33	16 33	G.S.J.	2	22 57·0	23 5·2	22 47·6	23 0·9	22 57·7		
,, 27	11 56	13 2	G.S.J.	1	22 53·6	23 4·5	22 46·2	22 57·4	22 55·4	22 57·3	
,, ,,	13 14	14 16	G.S.J.	2	22 55·9	23 6·1	22 49·0	23 0·6	22 57·9		
,, 30	14 18	15 18	G.S.J.	1	22 57·1	23 5·8	22 49·1	22 58·0	22 57·5		
,, ,,	15 28	16 28	G.S.J.	2	22 57·7	23 6·5	22 49·2	23 0·1	22 58·4		

* The place of observation was transferred from 1st to the 2nd floor.

1904. Date.	Allbag Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	P. Face of Circle. East.	P. Face of Circle. West.	Mean Dip	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
Oct. 4	11 38	12 42	G.S.J.	1	22 57·7	22 59·2	22 49·2	22 51·7	22 54·4		
,, ,,	12 54	13 56	G.S.J.	2	22 54·2	23 3·2	22 48·5	22 59·6	22 56·4		
,, 7	14 18	15 20	G.S.J.	1	22 59·4	23 2·4	22 49·1	22 55·4	22 56·6		
,, ,,	15 32	16 33	G.S.J.	2	22 54·7	23 5·8	22 46·8	23 1·2	22 57·1	No. 1 ° ′	
,, 11	11 57	12 59	G.S.J.	1	22 55·1	23 4·0	22 44·7	22 55·2	22 54·7		
,, ,,	13 12	14 15	G.S.J.	2	22 53·9	23 5·6	22 49·9	23 2·1	22 57·9	22 56·3	
,, 14	14 25	15 30	G.S.J.	1	22 59·1	23 6·4	22 46·9	22 58·1	22 57·6		
,, ,,	15 45	16 56	G.S.J.	2	22 54·1	23 7·5	22 48·1	23 0·3	22 57·5		22 56·8
,, 18	11 59	13 2	G.S.J.	1	22 53·8	23 4·7	22 45·7	22 59·6	22 55·9		
,, ,,	13 14	14 16	G.S.J.	2	22 58·1	23 4·2	22 48·9	22 57·2	22 57·1		
,, 21	14 18	15 20	G.S.J.	1	22 58·0	23 8·1	22 46·9	22 57·7	22 57·7	No. 2 ° ′	
,, ,,	15 32	16 34	G.S.J.	2	22 57·5	23 6·2	22 48·1	22 59·6	22 57·8		
,, 25	12 0	13 0	G.S.J.	1	22 55·8	23 6·4	22 45·6	22 57·3	22 56·3	22 57·3	
,, ,,	13 12	14 14	G.S.J.	2	22 54·0	23 3·9	22 48·7	22 59·5	22 56·5		
,, 28	14 18	15 22	G.S.J.	1	22 55·7	23 7·5	22 47·1	22 59·1	22 57·3		
,, ,,	15 33	16 33	G.S.J.	2	22 54·6	23 5·6	22 49·3	23 2·0	22 57·9		
Nov. 1	11 57	13 2	G.S.J.	1	22 52·6	23 6·3	22 46·2	22 57·4	22 55·6		
,, ,,	13 14	14 15	G.S.J.	2	22 56·1	23 4·6	22 47·2	22 58·6	22 56·6		
,, 4	13 50	14 53	G.S.J.	1	22 58·7	23 7·9	22 49·1	22 58·9	22 58·6		
,, ,,	15 5	16 14	G.S.J.	2	22 56·5	23 6·7	22 48·3	23 1·7	22 58·3		
,, 8	12 22	13 27	G.S.J.	1	22 59·7	23 4·9	22 47·7	23 1·4	22 58·4	No. 1 ° ′	
,, ,,	13 37	14 36	G.S.J.	2	22 57·9	23 8·1	22 50·6	23 0·2	22 59·2	22 57·2	
,, 11	14 0	15 3	G.S.J.	1	22 59·9	23 3·3	22 49·6	22 56·5	22 57·3		
,, ,,	15 14	16 15	G.S.J.	2	22 56·8	23 4·9	22 49·1	23 0·0	22 59·2		
,, 15	11 33	12 35	G.S.J.	1	22 56·7	23 3·7	22 49·1	22 56·4	22 56·5		22 57·7
,, ,,	12 47	13 47	G.S.J.	2	22 54·5	23 3·4	22 48·2	22 57·9	22 56·0		
,, 18	14 4	15 3	G.S.J.	1	22 58·4	23 3·9	22 52·7	22 58·4	22 58·3		
,, ,,	15 15	16 15	G.S.J.	2	22 57·7	23 6·2	22 50·6	23 2·1	22 59·1		
,, 22	11 40	12 44	G.S.J.	1	23 1·1	23 5·8	22 50·6	22 55·6	22 58·3	No. 2 ° ′	
,, ,,	12 55	13 55	G.S.J.	2	22 56·6	23 7·1	22 48·8	23 1·9	22 58·6		
,, 25	13 58	15 3	G.S.J.	1	22 55·6	23 5·5	22 47·3	22 59·1	22 56·9	22 58·2	
,, ,,	15 15	16 16	G.S.J.	2	22 57·9	23 5·9	22 50·2	23 2·2	22 59·0		
,, 29	11 48	12 50	G.S.J.	1	22 51·9	23 4·9	22 47·1	22 55·6	22 54·9		
,, ,,	13 2	14 0	G.S.J.	2	22 56·1	23 5·5	22 50·5	23 0·5	22 58·1		
Dec. 2	13 58	15 2	G.S.J.	1	22 56·5	23 5·2	22 48·7	22 57·2	22 56·9		
,, ,,	15 13	16 14	G.S.J.	2	22 57·2	23 6·9	22 49·7	23 0·8	22 58·6		
,, 6	11 46	12 55	G.S.J.	1	23 0·5	23 6·1	22 49·1	22 57·5	22 58·3		
,, ,,	13 8	14 4	G.S.J.	2	22 57·6	23 6·8	22 50·5	23 1·6	22 59·1	No. 1 ° ′	
,, 9	13 55	15 4	N.	1	22 57·7	23 6·8	22 47·9	23 0·9	22 58·3		
,, ,,	15 17	16 19	N.	2	22 56·3	23 7·8	22 49·2	23 2·6	22 59·0	22 58·1	
,, 13	11 30	12 32	N.	1	22 55·0	23 5·0	22 44·1	22 58·7	22 55·7		
,, ,,	12 43	13 41	N.	2	22 56·0	23 6·4	22 47·0	22 58·9	22 57·1		
,, 16	14 15	15 16	N.	1	23 0·9	23 9·2	22 53·5	23 0·3	23 1·0		
,, ,,	15 26	16 24	N.	2	22 56·6	23 9·7	22 46·7	23 4·1	22 59·3		22 58·4
,, 20	11 29	12 29	N.	1	23 2·2	23 1·9	22 50·0	22 59·2	22 58·3		
,, ,,	12 40	13 43	N.	2	22 56·4	23 4·7	22 52·6	23 2·5	22 59·0		
,, 23	14 0	15 2	G.S.J.	1	23 2·4	23 4·9	22 49·6	22 59·6	22 59·1	No. 2 ° ′	
,, ,,	15 14	16 15	G.S.J.	2	22 56·8	23 6·2	22 49·7	23 1·6	22 58·6		
,, 27	11 40	12 40	G.S.J.	1	22 58·0	23 5·4	22 50·4	22 54·6	22 57·1	22 58·6	
,, ,,	12 52	13 55	G.S.J.	2	22 56·2	23 8·2	22 49·4	23 2·3	22 59·0		
,, 30	14 0	15 2	G.S.J.	1	22 56·1	23 8·0	22 47·9	23 0·9	22 58·2		
,, ,,	15 13	16 14	G.S.J.	2	22 53·9	23 5·7	22 49·8	23 2·1	22 57·9		

The Mean Deep for the year ... With Needle No. 1 = ° ′ 22 54·5

With Needle No. 2 = ° ′ 22 54·9

The Mean Dip for the year 1904 = ° ′ 22 54·7

Table—Absolute Magnetical Observations, Alibág.—Table III*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1904.

Taken with Dip Circle No. 160 (Cambridge Scientific Instrument Co.) and two Supplementary 3½ inch Needles, Nos. 1 and 2 by Dover.

1904. Date.	Alibág Civil Time (0 to 24 hours.) At commencement	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JAN. 2	12 28	13 38	G.S.J.	1	22 41·8	22 53·4	22 55·8	23 6·0	22 54·2	No. 1	
„ „	13 50	14 50	G.S.J.	2	22 51·1	22 57·6	22 47·8	22 53·4	22 52·5	° ′	
„ 9	12 45	13 55	G.S.J.	1	22 42·9	22 52·1	22 55·3	23 4·8	22 53·8	22 52·8	
„ „	14 8	15 7	G.S.J.	2	22 51·7	22 56·7	22 47·1	22 55·0	22 52·6		
„ 16	11 28	12 39	S.	1	22 40·6	22 52·2	22 57·7	23 2·3	22 53·2		
„ „	12 53	14 0	S.	2	22 51·9	22 58·9	22 48·7	22 54·6	22 53·5		22 52·6
„ 23	12 25	13 35	G.S.J.	1	22 38·4	22 48·6	22 56·2	23 4·1	22 51·8		
„ „	13 47	14 58	G.S.J.	2	22 50·2	22 54·0	22 47·6	22 53·4	22 51·3	No. 2	
„ 30	11 55	13 5	S.	1	22 41·9	22 47·7	22 54·7	23 0·7	22 51·2	° ′	
„ „	13 17	14 30	S.	2	22 53·0	22 56·1	22 45·2	22 55·2	22 52·4	22 52·5	
FEB. 6	12 25	13 38	G.S.J.	1	22 40·0	22 49·6	22 54·1	23 4·5	22 52·0	No. 1	
„ „	13 50	15 10	G.S.J.	2	22 52·1	22 56·8	22 45·6	22 54·9	22 52·3	° ′	
„ 20	12 36	13 46	G.S.J.	1	22 39·6	22 47·9	22 55·1	23 5·1	22 51·9	22 51·9	
„ „	14 0	15 11	G.S.J.	2	22 52·1	22 55·9	22 44·7	22 54·1	22 51·7		22 52·1
„ 27	12 15	13 25	G.S.J.	1	22 42·0	22 48·5	22 54·2	23 2·6	22 51·8	No. 2	
„ „	13 38	14 51	G.S.J.	2	22 50·2	22 58·9	22 46·3	22 56·2	22 52·9	° ′	
MARCH 5	11 55	13 5	S.	1	22 41·4	22 45·9	22 55·7	23 4·2	22 51·8	22 52·3	
„ „	13 17	14 29	S.	2	22 51·0	22 54·6	22 45·9	22 53·1	22 51·1	No. 1	
„ 12	12 30	13 50	G.S.J.	1	22 39·7	22 49·8	22 57·0	23 7·4	22 53·5	° ′	
„ „	14 0	15 3	G.S.J.	2	22 50·7	22 57·2	22 47·4	22 55·8	22 52·8	22 52·1	
„ 19	12 2	13 10	G.S.J.	1	22 38·6	22 47·9	22 53·2	23 1·9	22 50·4		22 52·0
„ „	13 21	14 21	G.S.J.	2	22 48·9	22 56·2	22 44·7	22 52·9	22 50·7	No. 2	
„ 26	12 15	13 25	G.S.J.	1	22 40·9	22 51·4	22 55·5	23 3·9	22 52·9	° ′	
„ „	13 35	14 40	G.S.J.	2	22 50·9	22 57·5	22 47·3	22 56·9	22 53·1	22 51·9	
APRIL 2	12 47	13 54	G.S.J.	1	22 44·1	22 52·6	22 57·6	23 6·7	22 55·2	No. 1	
„ „	14 4	15 7	G.S.J.	2	22 53·3	22 57·9	22 49·8	22 56·2	22 54·3	° ′	
„ 9	14 24	15 34	G.S.J.	1	22 41·7	22 51·1	22 55·6	23 5·4	22 53·4	22 54·2	
„ 16	13 20	14 23	G.S.J.	2	22 49·7	22 57·2	22 44·4	22 55·0	22 51·6	No. 2	22 53·7
„ 30	14 24	15 33	N.	1	22 38·4	22 56·2	22 51·0	23 10·0	22 53·9	° ′	
										22 52·9	
MAY 7	13 33	14 35	N.	2	22 53·0	22 58·7	22 50·2	22 56·0	22 54·5	No. 1	
„ 14	14 29	15 31	N.	1	22 44·9	22 53·7	22 59·5	23 6·1	22 56·0	° ′	
„ 21	12 30	13 33	N.	2	22 52·4	22 58·9	22 48·0	22 54·4	22 53·4	22 54·8	
„ 28	14 20	15 18	N.	1	22 36·6	22 52·2	22 55·0	23 10·7	22 53·6	No. 2	22 54·4
										° ′	
										22 53·9	

1904. Date.	Allbág Civil Time (0 to 24 hours). At commencement	At conclusion	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
June 4	13 15	14 18	G.S.J.	2	22 50·1	22 58 6	22 47·7	22 56·9	22 53·3	No. 1 ° ′ 22 56·8	22 55·1
,, 11	14 27	15 35	G.S.J.	1	22 47·6	22 56·1	22 57·3	23 6·3	22 56·8	No. 2 ° ′ 22 54·2	
,, 18	13 10	14 18	G.S.J.	2	22 51·8	22 58·2	22 51·9	22 58·8	22 55·2		
July 2	13 15	14 16	G.S.J.	1	22 42·0	22 53·4	23 0·0	23 9·2	22 56·1	No. 1 ° ′ 22 56·1	22 55·4
,, 9	13 20	14 20	G.S.J;	2	22 50·5	22 57·9	22 48·9	22 58·1	22 53·8	No. 2 ° ′ 22 54·3	
,, 16	13 12	14 15	G.S.J.	1	22 43·5	22 53·9	22 58·1	23 8·6	22 56·0		
,, 23	13 15	14 16	G.S.J.	2	22 53·6	22 59·4	22 48·6	22 58·2	22 54·9		
,, 30	13 10	14 15	G.S.J.	1	22 44·3	22 53·4	22 59·2	23 8·1	22 56·2		
August 6	13 16	14 16	G.S.J.	2	22 56·0	23 0·2	22 50·0	23 0·1	22 56·6	No. 1 ° ′ 22 55·5	22 55·5
,, 13	13 46	14 50	G.S.J.	1	22 42·6	22 52·7	22 59·1	23 6·6	22 55·2	No. 2 ° ′ 22 55·5	
,, 20	13 20	14 19	G.S.J.	2	22 51·6	22 56·1	22 51·6	22 58·8	22 54·5		
,, 27	14 18	15 24	G.S.J.	1	22 43·6	22 54·4	22 58·8	23 6·6	22 55·8		
Sept. 3	13 12	14 15	G.S.J.	2	22 53·6	23 0·4	22 51·6	22 59·4	22 56·2	No. 1 ° ′ 22 57·9	22 57·1
,, 10	14 18	15 20	G.S.J.	1	22 48·9	22 57·6	22 59·2	23 9·6	22 58·8	No. 2 ° ′ 22 56·3	
,, 17	13 14	14 18	G.S.J.	2	22 56·8	22 58·4	22 53·0	22 57·5	22 56·4		
,, 24	13 18	14 19	G.S.J.	1	22 46·8	22 53·7	23 0·3	23 7·7	22 57·1		
Oct. 1	13 16	14 17	G.S.J.	2	22 54·4	22 57·4	22 52·0	22 58·6	22 55·6	No. 1 ° ′ 22 59·0	22 57·8
,, 8	14 18	15 15	G.S.J.	1	22 46·0	22 49·6	23 3·2	23 12·5	22 57·8	No. 2 ° ′ 22 56·9	
,, 15	14 14	15 12	G.S.J.	2	22 56·1	23 1·9	22 54·4	23 1·6	22 58·5		
,, 22	13 48	14 50	G.S.J.	1	22 48·1	22 57·0	23 3·7	23 12·6	23 0·3		
,, 29	12 2	13 7	G.S.J.	2	22 54·9	22 59·2	22 54·3	22 58·6	22 56·7		
Nov. 5	12 2	13 2	G.S.J.	1	22 48·6	22 56·2	23 2·1	23 14·2	23 0·3	No. 1 ° ′ 22 59·4	22 58·6
,, 12	12 15	13 17	G.S.J.	2	22 56·4	22 59·3	22 53·5	22 58·8	22 57·0	No. 2 ° ′ 22 57·7	
,, 19	11 18	12 16	G.S.J.	1	22 44·7	22 55·5	23 2·1	23 12·1	22 58·6		
,, 26	12 8	13 9	G.S.J.	2	22 58·1	23 1·6	22 55·4	22 58·9	22 58·5		
Dec. 3	11 57	12 58	G.S.J.	1	22 46·1	22 55·0	23 4·9	23 10·2	22 59·0	No. 1 ° ′ 22 59·2	22 58·4
,, 10	11 35	12 39	N.	2	22 56·3	23 0·5	22 52·2	22 59·4	22 57·1	No. 2 ° ′ 22 57·2	
,, 17	11 29	12 30	N.	1	22 44·1	22 58·1	23 0·2	23 12·6	22 58·7		
,, 24	11 56	12 57	G.S.J.	2	22 56·4	23 0·1	22 53·5	22 59·7	22 57·4		
,, 31	12 2	13 0	G.S.J.	1	22 44·4	22 56·0	23 4·3	23 14·4	22 59·8		

The Mean Dip for the year ... { With Needle No. 1 = 22 55·3 ; With Needle No. 2 = 22 54·6

The Mean Dip for year 1904 = 22 55·2

Absolute Magnetical Observations, Alibag.—Table I.

Observations of Vibration and Deflection, taken with the Magnetometer No. 7 (T. Cooke and Sons) for the determination of Absolute Horizontal Force.

1905.

1905. Date.		Civil Time Mean.	Vibration Magnet. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Angle of Deflection of Magnet marked 7. Distance. 22·5 c. m. s.	30·0 c. m. s.	Temperature.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Observer.	Calculated Results in C. G. S. Units. Values of m.	Values of X. From Deflections at distance. 22·5 c. m. s. ($X_{22·5}$)	30·0 c. m. s. ($X_{30·0}$)	Difference. $X_{22·5} - X_{30·0}$	Mean. $\frac{X_{22·5} + X_{30·0}}{2}$	Observed Monthly Mean Values of X.	Corrected Mean Monthly Values of X.
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		h. m.	s	Sc. div.	°	s.		°	° ′ ″	° ′ ″	°		°								
JAN.	4	12 38	2·7013	1·48	24·7	—3·4	91·6	84·4	26 43 49	10 52 15	24·7	92·1	84·4	G.S.J.	940·76	·36890	·36888	+·00002	·36889		
,,	,,	15 0	2·7024	1·47	25·2	,,	89·8	84·5	26 43 52	10 52 15	25·0	89·8	84·5	G.S.J.	940·55	·36877	·36876	+·00001	·36876		
,,	11	12 18	2·7012	1·46	24·4	—3·3	88·9	83·9	26 44 8	10 52 21	24·5	86·9	84·0	G.S.J.	940·76	·36887	·36886	+·00001	·36886		
,,	,,	15 4	2·7032	1·48	25·4	,,	83·7	84·0	26 44 12	10 52 19	25·1	83·8	84·0	G.S.J.	940·42	·36862	·36863	—·00001	·36862	0·36883	0·36873
,,	18	12 17	2·7010	1·46	25·6	—3·4	93·5	83·5	26 41 52	10 51 32	25·6	90·8	83·5	G.S.J.	940·76	·36915	·36912	+·00003	·36913		
,,	,,	15 0	2·7032	1·47	26·0	,,	83·9	83·5	26 42 44	10 51 42	25·9	85·8	83·5	G.S.J.	940·31	·36876	·36877	—·00001	·36876		
,,	25	12 18	2·7011	1·46	23·9	—3·7	86·8	82·2	26 43 52	10 52 16	24·1	85·8	82·2	G.S.J.	940·52	·36891	·36890	+·00001	·36890		
,,	,,	15 3	2·7025	1·45	25·0	,,	81·4	82·3	26 44 23	10 52 31	24·5	81·5	82·3	G.S.J.	940·52	·36871	·36869	+·00002	·36870		
FEB.	1	12 56	2·6990	1·44	21·8	—3·2	88·3	81·2	26 45 20	10 52 40	22·0	86·4	81·2	G.S.J.	940·68	·36905	·36908	—·00003	·36906		
,,	,,	15 11	2·7002	1·43	22·7	,,	83·4	81·2	26 45 30	10 52 50	22·3	83·8	81·2	G.S.J.	940·59	·36891	·36892	—·00001	·36891		
,,	8	12 52	2·7001	1·49	22·0	—3·7	81·8	80·1	26 45 32	10 52 55	22·6	81·4	80·2	N.	940·57	·36883	·36882	+·00001	·36882		
,,	,,	16 3	2·7010	1·47	23·0	,,	76·2	80·2	26 46 1	10 53 8	22·2	77·4	80·2	N.	940·55	·36878	·36876	+·00002	·36877	0·36890	0·36872
,,	15	12 24	2·7009	1·50	24·7	—3·6	82·8	80·1	26 42 55	10 52 5	24·6	81·6	80·1	N.	940·70	·36905	·36899	+·00006	·36902		
,,	,,	15 21	2·7019	1·49	25·0	,,	76·3	80·2	26 43 53	10 52 16	24·8	77·6	80·2	N.	940·65	·36882	·36882	·00000	·36882		
,,	22	12 26	2·7005	1·48	24·1	—3·4	81·7	80·0	26 42 52	10 51 52	24·6	79·7	80·0	N.	940·63	·36906	·36905	+·00001	·36905		
,,	,,	15 23	2·7022	1·49	25·1	,,	75·0	80·1	26 43 36	10 52 17	24·9	76·1	80·1	N.	940·55	·36881	·36877	+·00004	·36879		
MAR.	1	12 17	2·7012	1·23	25·1	—3·4	81·3	81·6	26 41 25	10 51 31	25·0	80·5	81·6	N.	940·37	·36918	·36912	+·00006	·36915		
,,	,,	15 15	2·7018	1·31	25·0	,,	77·0	81·6	26 41 51	10 51 36	25·0	78·4	81·6	N.	940·24	·36905	·36901	+·00004	·36903		
,,	8	12 42	2·7024	1·25	25·8	—3·5	71·8	82·0	26 43 25	10 52 11	26·0	69·0	82·0	N.	940·85	·36877	·36874	+·00003	·36875		
,,	,,	15 3	2·7033	1·30	26·0	,,	63·9	82·2	26 44 45	10 52 30	26·0	63·8	82·1	N.	940·89	·36854	·36854	·00000	·36854		
,,	15	12 15	2·7031	1·25	27·6	—3·5	69·2	83·2	26 41 1	10 51 6	27·7	69·7	83·2	G.S.J.	940·70	·36894	·36895	—·00001	·36894	0·36901	0·36875
,,	,,	15 7	2·7045	1·26	28·1	,,	61·9	83·2	26 41 42	10 51 20	27·9	65·5	83·2	G.S.J.	940·52	·36870	·36871	—·00001	·36870		
,,	22	12 29	2·7018	1·24	26·4	—3·5	74·9	84·0	26 40 11	10 50 45	26·2	73·6	84·0	G.S.J.	940·29	·36924	·36926	—·00002	·36925		
,,	,,	15 9	2·7030	1 22	26·5	,,	69·0	84·0	26 41 1	10 51 7	26·3	69·9	84·0	G.S.J.	940·16	·36898	·36899	—·00001	·36898		
,,	29	12 12	2·7010	1·24	27·6	—3·4	80·0	85·0	26 37 36	10 49 46	27·5	78·4	85·0	G.S.J.	940·44	·36962	·36963	—·00001	·36962		
,,	,,	15 4	2·7032	1 22	27·9	,,	68·1	85·0	26 38 44	10 50 15	27·9	70·6	85·0	G.S.J.	940·13	·36918	·36918	·00000	·36918		

1905. Date.	Civil Time Mean.	Vibration Magnet. Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Angle of Deflection of Magnet marked 7. Distance. 22·5 c. m. s.	30·0 c. m. s.	Temperature.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Thermometer.	Observer.	Calculated Results in C. G. S. Units. Values of m.	Values of X. From Deflections at distance. 22·5 c. m. s. ($X_{22·5}$)	30·0 c. m. s. ($X_{30·0}$).	Difference. $X_{22·5} - X_{30·0}$	Mean. $\frac{X_{22·5} + X_{30·0}}{2}$	Observed Monthly Mean Values of X.	Corrected Mean Monthly Values of X.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s	Sc.div		s.		°	° ′ ″	° ′ ″	°		°								
Apr. 5	12 3	2·7027	1·22	26·2	−3·6	62·6	85·0	26 41 22	10 51 16	26·2	61·4	85·0	G.S.J.	940·29	·36897	·36898	−·00001	·36897		
,, ,,	15 4	2·7051	1·25	26·8	,,	47·8	85·0	26 42 46	10 51 48	26·6	53·4	85·0	G.S.J.	940·07	·36852	·36852	·00000	·36852		
,, 12	12 13	2·7023	1·24	27·4	,,	65·4	85·6	26 38 53	10 50 20	27·5	65·2	85·6	G.S.J.	940·33	·36928	·36928	·00000	·36928		
,, ,,	15 5	2·7036	1·24	27·9	,,	58·0	85·6	26 39 35	10 50 35	27·8	61·1	85·6	G.S.J.	940·24	·36903	·36905	−·00002	·36904		
,, 19	12 14	2·7033	1·23	29·0	−3·2	57·8	86·7	26 38 55	10 50 22	29·0	56·7	86·7	G.S.J.	940·70	·36915	·36914	+·00001	·36914	·36898	0·36879
,, ,,	15 6	2·7046	1·23	29·2	,,	52·5	86·8	26 39 19	10 50 30	29·0	53·8	86·8	G.S.J.	940·39	·36894	·36894	·00000	·36894		
,, 26	12 30	2·7037	1·23	28·5	−3·6	53·1	87·6	26 39 16	10 50 27	28·3	51·4	87·6	G.S.J.	940·35	·36906	·36907	−·00001	·36906		
,, ,,	15 6	2·7049	1·23	28·7	,,	46·6	87·6	26 39 6	10 50 29	28·7	48·8	87·6	G.S.J.	940·07	·36890	·36888	+·00002	·36889		
May 3	12 22	2·7036	1·25	29·3	−3·1	50·0	88·6	26 38 56	10 50 23	29·0	49·5	88·6	G.S.J.	940·65	·36912	·36911	+·00001	·36911		
,, ,,	15 2	2·7052	1·25	29·2	,,	38·5	88·7	26 40 13	10 50 45	29·5	42·1	88·7	G.S.J.	940·50	·36871	·36873	−·00002	·36872		
,, 10	12 42	2·7043	1·25	30·5	−3·5	47·1	89·8	26 36 42	10 49 31	30·7	45·7	89·8	G.S.J.	940·48	·36922	·36921	+·00001	·36921		
,, ,,	14 57	2·7059	1·27	30·9	,,	41·0	89·8	26 37 1	10 49 37	30·9	42·5	89·8	G.S.J.	940·11	·36898	·36898	·00000	·36898		
,, 17	12 21	2·7061	1·24	31·9	−3·3	41·7	91·0	26 35 5	10 48 51	32·0	41·8	91·0	G.S.J.	940·00	·36916	·36916	·00000	·36916	·36904	0·36885
,, ,,	15 1	2·7060	1·23	31·6	,,	38·2	91·0	26 35 34	10 49 6	31·8	40·1	91·0	G.S.J.	940·07	·36911	·36910	+·00001	·36910		
,, 24	13 2	2·7063	1·23	31·8	−3·2	*91·9	92·3	26 35 36	10 49 0	31·8	*90·8	92·3	G.S.J.	939·98	·36908	·36910	−·00002	·36909		
,, ,,	15 0	2·7068	1·23	31·8	,,	87·8	92·3	26 35 49	10 49 11	31·9	88·8	92·3	G.S.J.	939·92	·36898	·36897	+·00001	·36897		
,, 31	12 14	2·7060	1·26	31·9	−3·1	89·1	93·1	26 35 17	10 48 52	31·5	87·9	93·1	G.S.J.	939·92	·36919	·36921	−·00002	·36920		
,, ,,	15 6	2·7074	1·24	32·0	,,	77·8	93·1	26 36 21	10 49 24	32·0	81·5	93·1	G.S.J.	939·94	·36885	·36883	+·00002	·36884		
June 7	12 32	2·7061	1·24	31·5	−2·8	81·3	93·7	26 36 7	10 49 20	31·1	80·7	93·7	G.S.J.	940·05	·36911	·36908	+·00003	·36909		
,, ,,	15 5	2·7069	1·23	31·2	,,	75·2	93·7	26 36 30	10 49 31	31·4	77·2	93·7	G.S.J.	939·87	·36889	·36886	+·00003	·36887		
,, 14	12 25	2·7065	1·23	31·9	−3·4	76·7	94·3	26 35 29	10 49 0	31·8	75·1	94·2	G.S.J.	939·92	·36907	·36908	−·00001	·36907		
,, ,,	15 11	2·7077	1·25	32·0	,,	68·0	94·3	26 36 10	10 49 19	32·0	70·5	94·3	G.S.J.	939·79	·36882	·36881	+·00001	·36881		
,, 21	12 26	2·7071	1·23	31·8	−3·0	66·1	94·5	26 35 31	10 49 1	31·9	67·9	94·5	G.S.J.	939·72	·36898	·36898	·00000	·36898	·36898	0·36879
,, ,,	15 2	2·7073	1·24	32·1	,,	66·1	94·5	26 35 47	10 49 11	32·1	66·6	94·5	G.S.J.	939·85	·36892	·36890	+·00002	·36891		
,, 28	12 32	2·7039	1·26	28·7	−3·7	67·1	94·1	26 37 41	10 49 54	28·9	66·8	94·1	G.S.J.	940·05	·36917	·36916	+·00001	·36916		
,, ,,	15 6	2·7055	1·24	28·9	,,	61·8	94·1	26 38 11	10 50 1	28·9	63·9	94·1	G.S.J.	939·66	·36892	·36893	−·00001	·36892		
July 5	12 47	2·7040	1·25	28·1	−3·8	64·1	91·9	26 38 14	10 50 1	28·1	62·6	91·9	G.S.J.	939·81	·36912	·36913	−·00001	·36912		
,, ,,	15 4	2·7051	1·22	27·9	,,	57·7	91·9	26 38 42	10 50 16	27·9	59·7	91·9	G.S.J.	939·49	·36893	·36893	·00000	·36893		
,, 12	12 29	2·7053	1·23	29·9	−3·9	60·0	90·7	26 36 46	10 49 26	30·0	58·8	90·7	G.S.J.	939·79	·36908	·36911	−·00003	·36909		
,, ,,	15 2	2·7065	1·22	30·0	,,	55·8	90·6	26 37 21	10 49 43	30·0	55·6	90·6	G.S.J.	939·57	·36887	·36887	·00000	·36887	·36902	0·36880
,, 19	12 17	2·7048	1·21	29·8	−4·0	58·0	90·4	26 36 17	10 49 16	29·7	58·6	90·4	G.S.J.	939·74	·36922	·36924	−·00002	·36923		
,, ,,	15 5	2·7056	1·24	29·8	,,	54·1	90·4	26 36 40	10 49 27	29·9	56·4	90·4	G.S.J.	939·66	·36906	·36906	·00000	·36906		
,, 26	12 16	2·7042	1·24	28·0	−4·8	52·7	89·2	26 38 32	10 50 6	28·1	53·4	89·2	G.S.J.	939·79	·36905	·36908	−·00003	·36906		
,, ,,	15 6	2·7058	1·25	28·0	,,	47·6	89·1	26 39 25	10 50 25	27·9	49·7	89·1	G.S.J.	939·42	·36876	·36879	−·00003	·36877		

Aug.	2	12	22	2·7065	1·24	28·7	−4·3	38·5	88·8	26	41	37	10	51	21	28·8	32·6	88·8	G.S.J.	940·18	·36841	·36841	·00000	·36841		
,,	,,	15	8	2·7085	1·24	28·7	,,	28·2	88·8	26	43	43	10	52	11	28·9	21·5	88·8	G.S.J.	940·09	·36790	·36790	·00000	·36790		
,,	9	12	8	2·7053	1·22	29·0	−4·6	46·8	88·7	26	37	56	10	49	54	29·0	46·2	88·7	G.S.J.	939·68	·36897	·36899	−·00002	·36898		
,,	,,	15	3	2·7062	1·22	29·2	,,	42·6	88·7	26	38	1	10	50	0	29·3	44·0	88·7	G.S.J.	939·53	·36883	·36883	·00000	·36883		
,,	16	12	13	2·7056	1·24	30·1	−4·3	*97·1	89·0	26	36	50	10	49	30	30·1	*93·7	89·0	G.S.J.	939·79	·36905	·36906	−·00001	·36905	0·36870	0·36869
,,	,,	15	1	2·7073	1·22	30·5	,,	87·8	89·0	26	37	50	10	49	51	30·5	87·9	89·0	G.S.J.	939·64	·36870	·36872	−·00002	·36871		
,,	23	12	24	2·7047	1·25	28·9	−4·1	93·8	89·1	26	37	30	10	49	41	28·9	92·9	89·1	G.S.J.	939·70	·36910	·36913	−·00003	·36911		
,,	,,	15	4	2·7062	1·23	29·1	,,	*86·0	89·1	26	38	22	10	50	6	29·1	87·6	89·1	G.S.J.	939·55	·36880	·36881	−·00001	·36880		
,,	30	12	37	2·7057	1·40	29·1	−4·5	78·9	89·4	26	40	15	10	50	53	28·7	75·4	89·4	G.S.J.	940·16	·36870	·36869	+·00001	·36869		
,,	,,	15	0	2·7073	1·41	29·6	,,	75·8	89·4	26	39	19	10	50	27	29·5	80·1	89·4	G.S.J.	939·62	·36854	·36855	−·00001	·36854		
Sept.	6	12	32	2·7069	1·35	29·6	−4·2	77·9	89·7	26	38	36	10	50	7	29·6	77·3	89·7	G.S.J.	939·57	·36868	·36871	−·00003	·36869		
,,	,,	15	8	2·7075	1·41	29·8	,,	74·3	89·7	26	39	10	10	50	23	29·8	74·6	89·7	G.S.J.	939·62	·36853	·36854	−·00001	·36853		
,,	13	12	21	2·7038	1·39	27·1	−4·6	84·3	89·1	26	39	10	10	50	25	27·0	82·9	89·1	G.S.J.	939·66	·36906	·36906	·00000	·36906		
,,	,,	15	5	2·7051	1·42	27·2	,,	78·1	89·1	26	39	40	10	50	29	27·1	80·6	89·1	G.S.J.	939·33	·36882	·36886	−·00004	·36884	0·36858	0·36864
,,	20	12	21	2·7077	1·42	29·6	−4·2	69·5	89·0	26	39	31	10	50	30	29·5	69·4	89·0	G.S.J.	939·53	·36848	·36849	−·00001	·36848		
,,	,,	15	4	2·7072	1·41	29·7	,,	68·5	89·0	26	39	22	10	50	28	29·7	68·6	89·0	G.S.J.	939·72	·36855	·36856	−·00001	·36855		
,,	27	12	19	2·7073	1·42	29·2	−3·8	64·2	89·1	26	40	50	10	51	1	29·0	58·0	89·1	G.S.J.	939·79	·36839	·36841	−·00002	·36840		
,,	,,	15	0	2·7092	1·43	29·3	,,	54·8	89·1	26	41	10	10	51	12	29·6	56·0	89·1	G.S.J.	939·44	·36806	·36806	·00000	·36806		
Oct.	4	12	41	2·7045	1·41	30·4	−4·3	76·5	89·8	26	36	56	10	49	37	30·3	75·2	89·8	G.S.J.	940·31	·36918	·36916	+·00002	·36917		
,,	,,	14	59	2·7066	1·42	30·7	,,	67·1	89·8	26	37	37	10	49	51	30·6	70·0	89·8	G.S.J.	939·92	·36883	·36882	+·00001	·36882		
,,	11	12	38	2·7061	1·42	30·4	−3·8	71·7	90·2	26	36	26	10	49	22	30·4	69·8	90·2	G.S.J.	939·64	·36901	·36902	−·00001	·36901		
,,	,,	14	59	2·7072	1·41	30·9	,,	65·3	90·2	26	36	37	10	49	30	31·0	66·7	90·2	G.S.J.	939·57	·36883	·36882	+·00001	·36882	0·36896	0·36874
,,	18	12	16	2·7064	*1·42	30·8	−4·0	67·9	90·9	26	35	47	10	49	5	30·8	67·3	90·9	G.S.J.	939·53	·36904	·36905	−·00001	·36904		
,,	,,	15	0	2·7069	1·41	30·6	,,	65·2	90·9	26	35	49	10	49	6	30·8	66·5	90·9	G.S.J.	939·33	·36895	·36897	−·00002	·36896		
,,	25	12	28	2·7054	1·41	29·8	−3·8	66·5	90·7	26	36	59	10	49	35	29·3	64·7	90·7	G.S.J.	939·64	·36910	·36911	−·00001	·36910		
,,	,,	15	3	2·7067	1·41	29·7	,,	58·3	90·7	26	37	38	10	49	50	29·9	59·8	90·7	G.S.J.	939·49	·36878	·36878	·00000	·36878		
Nov.	1	12	31	2·7062	1·41	30·3	−4·0	62·9	90·2	26	36	40	10	49	25	30·2	59·6	90·2	G.S.J.	939·57	·36899	·36899	·00000	·36899		
,,	,,	15	1	2·7076	1·44	30·8	,,	56·0	90·2	26	36	49	10	49	32	30·7	56·8	90·2	G.S.J.	939·40	·36877	·36877	·00000	·36877		
,,	8	12	33	2·7059	1·43	30·0	−3·5	59·8	90·1	26	36	34	10	49	29	30·2	58·0	90·1	G.S.J.	939·64	·36901	·36899	+·00002	·36900		
,,	,,	15	3	2·7074	1·43	30·4	,,	53·7	90·1	26	36	57	10	49	37	30·4	54·5	90·1	G.S.J.	939·33	·36878	·36877	+·00001	·36877		
,,	15	12	18	2·7065	1·43	30·3	−3·3	54·8	89·9	26	36	33	10	49	27	30·6	53·6	89·9	G.S.J.	939·55	·36892	·36891	+·00001	·36891	0·36873	0·36852
,,	,,	15	3	2·7078	1·43	29·8	,,	46·8	89·9	26	37	57	10	50	0	30·2	48·7	89·9	G.S.J.	939·29	·36858	·36857	+·00001	·36857		
,,	22	12	22	2·7062	1·40	28·5	−3·2	*108·1	89·1	26	39	55	10	50	42	28·8	*105·1	89·1	G.S.J.	939·74	·36860	·36860	·00000	·36860		
,,	,,	15	8	2·7081	1·44	29·0	,,	100·6	89·1	26	40	29	10	50	55	28·9	102·3	89·1	G.S.J.	939·38	·36832	·36832	·00000	·36832		
,,	29	12	23	2·7049	1·42	27·0	−3·6	110·9	88·2	26	39	52	10	50	45	27·2	109·5	88·2	G.S.J.	939·51	·36880	·36878	+·00002	·36879		
,,	,,	15	3	2·7062	1·43	27·9	,,	105·7	88·2	26	40	10	10	50	51	27·7	107·1	88·2	G.S.J.	939·44	·36863	·36861	+·00002	·36862		
Dec.	6	12	21	2·7049	1·43	26·9	−3·2	107·9	87·1	26	40	19	10	50	56	27·0	106·9	87·1	G.S.J.	939·57	·36877	·36875	+·00002	·36876		
,,	,,	15	2	2·7058	1·41	27·4	,,	103·1	87·1	26	40	45	10	51	1	27·3	103·8	87·1	G.S.J.	939·51	·36860	·36860	·00000	·36860		
,,	13	12	25	2·7061	1·44	25·0	−3·3	94·9	85·6	26	44	28	10	52	35	25·2	93·3	85·6	G.S.J.	939·49	·36816	·36812	+·00004	·36814		
,,	,,	15	3	2·7064	1·43	26·3	,,	93·6	85·6	26	44	13	10	52	29	25·8	92·8	85·6	G.S.J.	939·72	·36821	·36817	+·00004	·36819	0·36856	0·36868
,,	20	11	59	2·7047	1·41	26·9	−3·1	105·1	85·0	26	41	32	10	51	20	26·5	101·4	85·0	G.S.J.	939·85	·36871	·36871	·00000	·36871		
,,	,,	15	5	2·7058	1·40	27·0	,,	98·3	85·1	26	42	23	10	51	37	27·0	96·4	85·1	G.S.J.	939·79	·36843	·36844	−·00001	·36843		
,,	27	12	25	2·7037	1·44	26·7	−3·4	110·3	84·5	26	39	40	10	50	38	26·8	108·2	84·5	G.S.J.	939·70	·36899	·36899	·00000	·36899		
,,	,,	15	2	2·7051	1·45	26·8	,,	101·8	84·5	26	40	51	10	51	3	26·8	102·6	84·5	G.S.J.	939·55	·36869	·36870	−·00001	·36869		

The mean value of the Horizontal Force for the year 1905 = 0·36886 | 0·36872

* Readjustment of the U. F. Magnetograph.

Absolute Magnetical Observations, Alibag—Table Ia.

Observations of Vibration and Deflection, taken with the Magnetometer No. 3 (Cambridge Scientific Instrument Co.) for the determination of Absolute Horizontal Force.

1905.

1905. Date.	Civil Time, Mean.	Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Ratio of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Corresponding Mean Reading of H. F. Magnetograph. Thermometer.	Angle of Deflection. Distance. 23 c.m. s.	Angle of Deflection. Distance. 30 c.m. s.	Angle of Deflection. Temperature.	Corresponding Mean Reading of H. F. Magnetograph. Scale Reading.	Corresponding Mean Reading of H. F. Magnetograph. Thermometer.	Observer.	Calculated Results in C. G. S. Units. Values of M.	Values of X. From Deflections at distance. 23 c. m. s. (X 23).	Values of X. From Deflections at distance. 30 c. m. s. (X 30).	Values of X. Difference. X−X 23—30.	Values of X. Mean. $\frac{X+X}{23—80}{2}$	Observed Monthly Mean Values of X.	Corrected Mean Monthly Values of X.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div	°	s.		°	° ′ ″	° ′ ″	°		°								
JAN. 9	13 4	2·8576	2·26	25·8	−3·4	89·8	84·0	24 0 8	10 34 35	25·7	89·0	84·0	G.S.J.	923·08	0·36883	0·36879	+·00004	0·36881		
,, ,,	15 8	2·8577	2·12	25·7	,,	88·6	84·2	24 0 0	10 34 24	25·8	88·7	84·1	G.S.J.	922·98	·36882	·36882	·00000	·36882		
,, 16	12 25	2·8580	2·06	24·8	−3·5	83·7	83·3	24 1 31	10 35 3	25·0	82·2	83·4	G.S.J.	922·98	·36860	·36860	·00000	·36860		
,, ,,	15 7	2·8581	2·13	25·3	,,	84·3	83·5	24 1 17	10 34 55	25·2	83·2	83·4	G.S.J.	923·00	·36864	·36865	−·00001	·36864	0·36872	0·36867
,, 23	12 38	2·8566	2·63	24·4	−3·4	85·2	82·7	24 1 15	10 34 58	24·0	84·6	82·7	G.S.J.	922·98	·36882	·36882	·00000	·36882		
,, ,,	15 8	2·8574	2·16	24·4	,,	83·7	82·7	24 1 32	10 34 50	24·2	83·0	82·7	G.S.J.	922·87	·36871	·36874	−·00003	·36872		
,, 30	12 24	2·8567	2·17	23·7	−3·7	80·8	81·8	24 2 16	10 35 27	22·9	81·0	81·8	G.S.J.	922·95	·36877	·36874	+·00003	·36875		
,, ,,	15 14	2·8571	2·21	23·2	,,	77·8	81·9	24 2 41	10 35 32	23·2	79·3	81·9	G.S.J.	922·85	·36860	·36860	·00000	·36860		
FEB. 6	12 49	2·8564	2·22	23·5	−3·4	79·5	80·6	24 2 15	10 35 7	23·1	77·9	80·7	N.	922·91	·36877	·36883	−·00006	·36880		
,, ,,	15 53	2·8574	2·35	23·6	,,	75·4	80·8	24 2 56	10 35 27	23·1	77·2	80·8	N.	922·83	·36856	·36862	−·00006	·36859		
,, 13	13 19	2·8568	2·30	23·8	−3·9	80·0	80·1	24 1 21	10 35 7	23·8	79·1	80·1	N.	922·87	·36878	·36874	+·00004	·36876		
,, ,,	16 14	2·8576	2·29	24·1	,,	76·1	80·1	24 1 26	10 34 52	24·2	76·9	80·1	N.	922·68	·36865	·36870	−·00005	·36867	0·36882	0·36871
,, 20	12 32	2·8548	2·29	23·7	−3·4	87·4	80·0	23 59 52	10 34 27	23·9	83·7	80·0	N.	923·04	·36920	·36917	+·00003	·36918		
,, ,,	15 17	2·8570	2·32	24·4	,,	77·7	80·0	23 59 52	10 34 32	24·0	80·0	80·0	N.	922·53	·36896	·36891	+·00005	·36893		
,, 27	12 26	2·8577	1·75	25·9	−3·4	81·3	81·6	23 59 12	10 33 58	26·6	80·5	81·6	N.	922·98	·36888	·36892	−·00004	·36890		
,, ,,	15 19	2·8595	1·69	26·2	,,	77·0	81·6	23 59 17	10 34 20	25·8	78·4	81·6	N.	922·44	·36875	·36868	+·00007	·36871		
MAR. 6	13 0	2·8570	1·78	25·6	−3·6	77·7	82·0	23 58 16	10 34 4	25·8	75·6	82·0	N.	922·87	·36914	·36903	+·00011	·36908		
,, ,,	15 17	2·8591	1·76	26·4	,,	69·4	82·0	23 59 18	10 34 25	25·9	71·9	82·0	N.	922·64	·36880	·36871	+·00009	·36875		
,, 13	12 27	2·8576	1·86	26·6	−3·5	73·3	83·0	23 59 41	10 34 26	26·7	70·3	83·0	G.S.J.	923·42	·36889	·36885	+·00004	·36887		
,, ,,	15 12	2·8597	1·76	26·8	,,	63·8	83·0	23 59 35	10 34 22	26·7	66·5	83·0	G.S.J.	922·76	·36865	·36861	+·00004	·36863		
,, 20	12 25	2·8574	1·58	27·0	−3·3	76·6	83·9	23 57 13	10 33 17	26·9	74·6	83·9	G.S.J.	922·87	·36924	·36923	+·00001	·36923	0·36895	0·36874
,, ,,	15 10	2·8587	1·95	26·8	,,	66·3	84·0	23 57 55	10 33 21	26·9	69·4	84·0	G.S.J.	922·47	·36895	·36900	−·00005	·36897		
,, 27	12 29	2·8579	2·08	27·0	−3·2	70·2	84·8	23 56 52	10 33 18	27·0	70·0	84·8	G.S.J.	922·57	·36918	·36911	+·00007	·36914		
,, ,,	15 11	2·8590	1·88	26·9	,,	63·8	84·8	23 57 56	10 33 26	27·0	66·7	84·8	G.S.J.	922·47	·36892	·36895	−·00003	·36893		

April	3	12	27	2·8592	1·93	26·2	−3·9	59·2	84·8	23	59	13	10	34	14	26·5	57·4	84·8	G.S.J.	922·61	·36872	·36868	+·00004	·36870		
,,	,,	15	9	2·8606	1·94	26·5	,,	51·7	84·9	23	59	44	10	34	14	26·5	54·0	84·9	G.S.J.	922·27	·36849	·36851	−·00002	·36850		
,,	10	12	28	2·8580	1·79	27·1	−3·5	65·0	85·3	23	57	5	10	33	16	27·3	62·5	85·3	G.S.J.	922·72	·36915	·36912	+·00003	·36913		
,,	,,	15	7	2·8600	1·66	26·9	,,	54·9	85·3	23	57	56	10	33	31	27·0	57·1	85·3	G.S.J.	922·19	·36880	·36881	−·00001	·36880		0·36888
,,	17	12	18	2·8591	1·76	28·2	−3·3	58·6	86·2*	23	56	58	10	33	12	28·4	57·9	86·2	G.S.J.	922·81	·36901	·36899	+·00002	·36900		
,,	,,	15	7	2·8601	1·80	28·3	,,	52·8	86·3	23	57	20	10	33	7	28·3	55·3	86·3	G.S.J.	922·51	·36885	·36891	−·00006	·36888		
,,	24	12	30	2·8594	1·84	28·8	−3·5	57·2	87·2	23	56	27	10	32	56	28·0	56·2	87·2	G.S.J.	922·57	·36913	·36912	+·00001	·36912		
,,	,,	15	10	2·8599	1·84	28·3	,,	50·2	87·2	23	57	17	10	33	9	27·8	52·7	87·2	G.S.J.	922·44	·36893	·36896	−·00003	·36894		
May	1	12	29	2·8600	1·83	29·4	−3·5	48·3	88·2	23	57	41	10	33	27	28·2	45·5	88·2	G.S.J.	922·91	·36892	·36892	·00000	·36892		
,,	,,	15	2	2·8611	1·68	28·7	,,	40·8	88·2	23	57	57	10	33	39	28·2	42·4	88·2	G.S.J.	922·57	·36871	·36868	+·00003	·36869		
,,	8	12	38	2·8614	1·81	30·1	−3·3	43·2	89·3	23	55	50	10	32	52	29·7	41·7	89·3	G.S.J.	922·47	·36889	·36883	+·00006	·36886		
,,	,,	15	4	2·8613	1·90	29·6	,,	41·1	89·4	23	55	59	10	32	39	29·3	41·6	89·4	G.S.J.	922·23	·36888	·36890	−·00002	·36889		
,,	15	12	31	2·8616	1·79	30·6	−3·4	39·2	90·7	23	54	32	10	32	15	30·8	38·8	90·7	G.S.J.	922·36	·36897	·36894	+·00003	·36895		
,,	,,	15	7	2·8618	1·86	30·7	,,	36·4	90·7	23	54	22	10	32	0	30·9	37·2	90·7	G.S.J.	922·19	·36896	·36898	−·00002	·36897		0·36892
,,	22	12	34	2·8602	2·01	30·4	−3·2	†96·7	92·0	23	53	27	10	31	43	30·8	†95·4	92·0	G.S.J.	922·36	·36924	·36923*	+·00001	·36923		
,,	,,	15	7	2·8618	1·90	30·7	,,	89·6	92·0	23	53	42	10	31	45	30·9	93·0	92·0	G.S.J.	922·00	·36904	·36905	−·00001	·36904		
,,	29	12	29	2·8622	1·92	31·4	−3·1	84·7	93·0	23	53	51	10	32	2	31·4	85·7	93·0	G.S.J.	922·25	·36899	·36893	+·00006	·36896		
,,	,,	15	5	2·8637	1·98	31·5	,,	77·6	93·0	23	54	24	10	32	1	31·5	81·8	93·0	G.S.J.	921·89	·36871	·36872	−·00001	·36871		
June	5	12	24	2·8608	1·89	30·8	−3·0	85·8	93·8	23	53	35	10	31	34	31·4	84·4	93·8	G.S.J.	922·36	·36915	·36919	−·00004	·36917		
,,	,,	15	10	2·8636	1·82	31·3	,,	71·4	93·8	23	53	51	10	31	40	31·7	78·2	93·8	G.S.J.	921·72	·36877	·36882	−·00005	·36879		
,,	12	11	4	2·8626	1·88	30·8	−3·2	63·1	94·2	23	54	49	10	32	25	30·8	62·0	94·2	G.S.J.	922·17	·36882	·36877	+·00005	·36879		
,,	,,	13	1	2·8627	1·83	30·9	,,	60·7	94·2	23	54	39	10	32	12	30·6	62·3	94·2	G.S.J.	922·00	·36885	·36884	+·00001	·36884		0·36899
,,	19	12	30	2·8610	1·90	31·4	−3·0	78·7	94·4	23	52	39	10	31	25	31·1	76·2	94·4	G.S.J.	922·17	·36931	·36928	+·00003	·36929		
,,	,,	15	10	2·8627	2·15	31·4	,,	67·4	94·4	23	53	12	10	31	36	31·4	71·2	94·4	G.S.J.	921·81	·36898	·36897	+·00001	·36897		
,,	26	12	37	2·8606	2·15	29·6	−3·6	67·9	94·3	23	54	52	10	32	18	29·2	67·3	94·3	G.S.J.	922·08	·36910	·36908	+·00002	·36909		
,,	,,	15	16	2·8612	1·99	29·1	,,	61·1	94·2	23	54	59	10	32	23	28·8	65·8	94·3	G.S.J.	921·76	·36909	·36899	+·00001	·36899		
July	3	12	55	2·8611	1·78	28·1	−3·8	62·8	92·6	23	55	13	10	32	32	28·3	62·3	92·6	G.S.J.	921·62	·36897	·36893	+·00004	·36895		
,,	,,	15	8	2·8618	1·90	28·5	,,	57·7	92·5	23	55	7	10	32	31	28·4	60·9	92·5	G.S.J.	921·45	·36890	·36886	+·00004	·36888		
,,	10	12	31	2·8626	1·84	29·4	−3·8	56·4	91·0	23	55	1	10	32	21	29·3	56·9	91·0	G.S.J.	921·51	·36881	·36881	·00000	·36881		
,,	,,	15	8	2·8624	1·77	29·3	,,	53·5	91·0	23	54	44	10	32	4	29·4	56·2	91·0	G.S.J.	921·47	·36885	·36889	−·00004	·36887		
,,	17	12	43	2·8603	1·81	29·5	−4·0	64·2	90·2	23	53	31	10	31	47	29·1	62·7	90·2	G.S.J.	921·83	·36932	·36929	+·00003	·36930		0·36891
,,	,,	15	15	2·8612	1·77	28·7	,,	56·0	90·2	23	54	14	10	31	48	29·2	59·6	90·2	G.S.J.	921·49	·36905	·36910	−·00005	·36907		
,,	24	12	33	2·8611	1·83	27·1	−4·5	47·4	89·6	23	57	0	10	33	22	27·4	47·2	89·6	G.S.J.	921·76	·36874	·36868	+·00006	·36871		
,,	,,	15	11	2·8629	1·77	27·6	,,	39·6	89·5	23	57	22	10	33	12	27·3	44·9	89·5	G.S.J.	921·28	·36852	·36855	−·00003	·36853		
,,	31	12	28	2·8602	1·66	28·4	−4·5	52·7	88·8	23	55	9	10	32	22	28·2	52·3	88·8	G.S.J.	921·87	·36913	·36913	·00000	·36913		
,,	,,	15	11	2·8620	1·66	28·6	,,	46·2	88·8	23	55	22	10	32	15	28·5	48·7	88·8	G.S.J.	921·40	·36886	·36893	−·00007	·36889		
Aug.	7	12	25	2·8622	1·82	28·4	−4·5	38·4	88·8	23	57	27	10	33	21	28·3	34·6	88·8	G.S.J.	921·96	·36858	·36858	·00000	·36858		
,,	,,	15	8	2·8642	1·69	28·1	,,	29·8	88·8	23	58	52	10	33	49	28·2	28·4	88·8	G.S.J.	921·64	·36815	·36818	−·00003	·36816		
,,	14	12	28	2·8621	1·68	29·0	−4·3	†92·4	88·7	23	55	46	10	32	39	28·8	†89·5	88·7	G.S.J.	921·74	·36882	·36881	+·00001	·36881		
,,	,,	15	7	2·8632	1·73	29·1	,,	83·8	88·7	23	56	17	10	32	51	29·0	85·3	88·7	G.S.J.	921·59	·36859	·36860	−·00001	·36859		
,,	21	12	27	2·8612	1·67	28·8	−4·3	96·7	89·2	23	53	53	10	32	0	28·8	95·1	89·2	G.S.J.	921·45	·36914	·36910	+·00004	·36912		0·36875
,,	,,	15	4	2·8622	1·75	28·8	,,	88·2	89·2	23	54	56	10	32	12	28·7	90·3	89·2	G.S.J.	921·34	·36888	·36891	−·00003	·36889		
,,	28	12	26	2·8603	1·72	28·9	−4·2	94·7	89·2	23	54	41	10	32	16	28·8	91·0	89·2	G.S.J.	921·98	·36916	·36914	+·00002	·36915		
,,	,,	15	12	2·8622	1·68	28·3	,,	82·4	89·2	23	56	11	10	32	41	28·4	85·8	89·2	G.S.J.	921·53	·36872	·36876	−·00004	·36874		
Sept.	4	12	25	2·8623	1·68	29·1	−4·2	85·0	89·7	23	54	35	10	32	20	28·7	85·1	89·7	G.S.J.	921·36	·36894	·36888	+·00006	·36891		
,,	,,	15	5	2·8637	1·68	29·1	,,	75·9	89·7	23	55	50	10	32	31	29·0	78·3	89·7	G.S.J.	921·23	·36858	·36863	−·00005	·36860		
,,	11	12	32	2·8617	1·67	27·9	−4·7	81·0	89·3	23	56	21	10	32	57	27·6	79·9	89·3	G.S.J.	921·57	·36881	·36878	+·00003	·36879		
,,	,,	15	9	2·8622	1·66	27·6	,,	74·1	89·3	23	56	46	10	32	56	27·6	75·6	89·3	G.S.J.	921·38	·36866	·36870	−·00004	·36868		0·36885
,,	18	12	23	2·8599	1·65	28·6	−4·3	89·7	89·0	23	53	36	10	30	35	28·5	88·1	89·0	G.S.J.	921·23	·36935	·36968	−·00033	·36951		
,,	,,	15	15	2·8630	1·74	28·7	,,	69·0	89·0	23	56	16	10	32	46	28·5	72·1	89·0	G.S.J.	921·42	·36863	·36865	−·00002	·36864		
,,	25	12	31	2·8620	1·67	29·1	−3·8	76·3	89·1	23	54	50	10	32	15	29·0	75·2	89·1	G.S.J.	921·55	·36893	·36893	·00000	·36893		
,,	,,	15	6	2·8629	1·66	29·1	,,	72·4	89·1	23	55	28	10	32	22	29·0	72·9	89·1	G.S.J.	921·38	·36873	·36877	−·00004	·36875		

† Readjustment of the H. F. Magnetograph.

1905. Date.	Civil Time, Mean.	Time of one Vibration.	Effect of 90° Torsion.	Temperature.	Rate of Chronometer.	Corresponding Mean Reading of H. F. Magnetograph.		Angle of Deflection.			Corresponding Mean Reading of H. F. Magnetograph.		Observer.	Calculated Results in C. G. S. Units.						
								Distance.						Values of M.	Values of X.				Observed Monthly Mean Values of X.	Corrected Mean Monthly Values of X.
						Scale Reading.	Thermometer.	23 c. m. s.	30 c. m. s.	Temperature.	Scale Reading.	Thermometer.			From Deflection at distance.		Difference.	Mean.		
															23 c. m. s. (X 23).	30 c. m. s. (X 30).	X − X 23—30.	$\frac{X+X}{23—30}{2}$		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	h. m.	s.	Sc. div.	°	s.		°	° ′ ″	° ′ ″	°										
Oct. 2	12 33	2·8603	1·71	28·8	−4·3	77·9	89·4	23 55 49	10 32 36	28·8	74·2	89·4	G.S.J.	922·25	·36902	·36904	−·00002	·36903		
,, ,,	15 13	2·8628	1·69	28·8	,,	66·5	89·4	23 56 9	10 32 47	28·9	68·7	89·4	G.S.J.	921·62	·36865	·36865	·00000	·36865		
,, 9	12 35	2·8630	1·73	30·7	−3·9	70·8	90·0	23 53 50	10 31 47	30·6	70·1	90·1	G.S.J.	921·62	·36891	·36892	−·00001	·36891		
,, ,,	15 9	2·8642	1·68	30·8	,,	65·6	90·1	23 54 2	10 31 55	30·6	66·4	90·1	G.S.J.	921·34	·36874	·36874	·00000	·36874		
,, 16	12 38	2·8626	1·72	31·6	−3·9	72·3	90·8	23 52 17	10 31 11	31·2	69·5	90·8	G.S.J.	921·49	·36911	·36911	·00000	·36911		
,, ,,	15 9	2·8644	1·82	30·8	,,	63·5	90·8	23 53 25	10 31 32	31·0	65·1	90·8	G.S.J.	921·11	·36875	·36878	−·00003	·36876	·36887	0·36869
,, 23	12 28	2·8620	1·66	29·6	−3·9	67·4	90·6	23 53 55	10 31 50	29·6	65·3	90·6	G.S.J.	921·49	·36903	·36903	·00000	·36903		
,, ,,	15 9	2·8634	1·70	29·6	,,	59·5	90·6	23 54 35	10 31 57	29·7	61·4	90·6	G.S.J.	921·21	·36876	·36881	−·00005	·36878		
,, 30	12 28	2·8643	1·83	29·0	−4·1	62·9	90·3	23 51 50	10 31 6	29·0	60·7	90·3	G.S.J.	919·88	·36897	·36894	+·00003	·36895		
,, ,,	15 12	2·8658	1·83	28·9	,,	55·4	90·3	23 52 29	10 31 12	28·9	57·0	90·3	G.S.J.	919·50	·36870	·36871	−·00001	·36870		
Nov. 6	12 43	2·8668	1·75	30·5	−3·4	58·9	90·1	23 49 38	10 30 11	30·3	57·2	90·1	G.S.J.	919·05	·36893	·36889	+·00004	·36891		
,, ,,	15 7	2·8682	1·88	30·0	,,	50·9	90·1	23 50 11	10 30 8	30·4	52·9	90·1	G.S.J.	918·57	·36862	·36867	−·00005	·36864		
,, 13	12 30	2·8681	1·88	29·9	−3·4	47·2	90·0	23 51 56	10 31 6	29·8	43·3	90·0	G.S.J.	919·07	·36848	·36846	+·00002	·36847		
,, ,,	15 8	2·8699	1·85	29·4	,,	36·2	90·0	23 52 24	10 31 17	29·6	40·0	90·0	G.S.J.	918·46	·36816	·36814	+·00002	·36815	·36859	0·36853
,, 20	12 43	2·8663	1·97	29·5	−3·3	†115·2	89·3	23 50 32	10 30 32	29·5	†111·8	89·3	G.S.J.	919·05	·36885	·36882	+·00003	·36883		
,, ,,	15 8	2·8684	1·92	29·6	,,	103·9	89·4	23 51 32	10 30 39	29·7	107·4	89·4	G.S.J.	918·65	·36846	·36852	−·00006	·36849		
,, 27	12 29	2·8654	2·03	26·7	−3·4	110·4	88·4	23 53 36	10 31 47	26·3	107·7	88·4	G.S.J.	918·92	·36865	·36862	+·00003	·36863		
,, ,,	15 11	2·8651	1·94	25·8	,,	103·8	88·4	23 54 41	10 31 57	25·7	104·4	88·4	G.S.J.	918·95	·36854	·36860	−·00006	·36857		
Dec. 4	12 33	2·8653	1·95	27·8	−3·5	112·9	87·6	23 51 27	10 30 47	27·8	111·8	87·6	G.S.J.	918·86	·36888	·36889	−·00001	·36888		
,, ,,	15 10	2·8656	2·06	27·9	,,	107·0	87·6	23 51 1	10 30 35	27·8	111·4	87·6	G.S.J.	918·63	·36889	·36892	−·00003	·36890		
,, 11	12 39	2·8631	2·01	25·7	−3·2	112·6	86·0	23 53 5	10 31 29	25·8	110·3	86·0	G.S.J.	919·16	·36897	·36898	−·00001	·36897		
,, ,,	15 10	2·8641	2·16	25·9	,,	107·3	86·1	23 53 9	10 31 30	25·9	108·6	86·1	G.S.J.	918·90	·36883	·36884	−·00001	·36883	·36883	0·36867
,, 18	12 28	2·8657	1·98	27·5	−3·1	107·2	85·2	23 51 53	10 31 11	27·7	106·6	85·2	G.S.J.	918·84	·36877	·36871	+·00006	·36874		
,, ,,	15 11	2·8664	2·00	27·8	,,	103·1	85·2	23 52 6	10 31 3	27·7	104·3	85·2	G.S.J.	918·67	·36867	·36868	−·00001	·36867		
,, 25	12 37	2·8638	2·03	26·0	−3·4	108·4	84·8	23 52 47	10 31 34	26·2	105·8	84·8	G.S.J.	919·07	·36890	·36885	+·00005	·36887		
,, ,,	15 12	2·8649	2·06	26·6	,,	104·3	84·8	23 52 49	10 31 23	26·5	104·2	84·8	G.S.J.	918·84	·36878	·36879	−·00001	·36878		
The mean Value of the Horizontal Force for the year 1905...																			=0·36884	0·36870

† Readjustment of the H. F. Magnetograph.

Absolute Magnetical Observations, Aliba'g—Table II.

Observations of absolute Declination, 1905.

Taken with Magnetometer No. 7 (T. Cooke and Sons).

1905. Date.	Alibág Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Collimator Magnet. Scale apparently. Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Horizontal Circle with Telescope pointed to. Kennery Light House.	Torsion. Mean.	Torsion. Effect of 90.°	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Monthly Mean. Observed Absolute Easterly Declination.	Monthly Mean. Corrected Mean Monthly Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″	° ′ ″
Jan. 5	11 52	55·6		85 45 45	222 28 45	0		G.S.J.	49·50	1 10 25	48·17	1 8 50	1 8 24
,, 12	11 39	55·6		85 43 30	222 28 40	0		G.S.J.	47·60	1 8 15			
,, 19	11 28	55·6		85 43 50	222 28 30	0		G.S.J.	47·90	1 8 45			
,, 26	11 38	55·6		85 43 0	222 28 30	0		G.S.J.	47·70	1 7 55			
Feb. 2	13 28	55·6		85 42 20	222 28 0	0		N.	47·00	1 7 45	48·57	1 9 10	1 8 22
,, 9	12 21	55·6		85 44 15	222 28 15	0		G.S.J.	49·20	1 9 25			
,, 16	11 9	55·6		85 44 40	222 28 20	0		N.	49·10	1 9 45			
,, 23	12 9	55·6		85 44 20	222 28 0	0		N.	49·00	1 9 45			
Mar. 2	11 29	55·6		85 43 50	222 28 10	0		N.	48·50	1 9 5	46·88	1 7 9	1 7 57
,, 9	11 58	55·6		85 41 10	222 28 0	0		N.	46·30	1 6 35			
,, 16	11 49	55·6		85 41 45	222 28 5	0		G.S.J.	47·00	1 7 5			
,, 23	11 28	55·6		85 41 50	222 28 10	0		G.S.J.	46·70	1 7 5			
,, 30	11 56	55·6		85 40 40	222 28 10	0		G.S.J.	45·90	1 5 55			
Apr. 6	11 40	55·6		85 41·25	222 28 10	0		G.S.J.	46·30	1 6 40	46·12	1 6 27	1 7 34
,, 13	10 37	55·6		85 42 40	222 27 40	0		G.S.J.	48·00	1 8 25			
,, 20	11 42	55·6		85 40 25	222 27 45	0		G.S.J.	45·80	1 6 5			
,, 27	12 0	55·6		85 39 5	222 27 50	0		G.S.J.	44·40	1 4 40			
May 4	11 38	55·6		85 40 45	222 28 5	0		G.S.J.	45·70	1 6 5	45·47	1 5 55	1 7 18
,, 11	11 56	55·6		85 40 35	222 28 5	0		G.S.J.	45·60	1 5 55			
,, 18	11 50	55·6		85 40 25	222 28 10	0		G.S.J.	45·30	1 5 40			
,, 25	11 48	55·6		85 40 35	222 28 0	0		G.S.J.	45·30	1 6 0			
June 1	11 19	55·6		85 40 35	222 28 5	0		G.S.J.	45·40	1 5 55	44·66	1 5 6	1 6 59
,, 8	11 40	55·6		85 40 25	222 28 5	0		G.S.J.	45·40	1 5 45			
,, 15	11 46	55·6		85 40 45	222 28 10	0		G.S.J.	45·30	1 6 0			
,, 22	11 59	55·6		85 37 55	222 28 0	0		G.S.J.	42·90	1 3 20			
,, 29	11 45	55·6		85 39 5	222 28 0	0		G.S.J.	44·30	1 4 30			
July 6	11 44	55·6		85 39 55	222 28 0	0		G.S.J.	44·90	1 5 20	43·77	1 3 51	1 6 23
,, 13	11 51	55·6		85 39 0	222 28 0	0		G.S.J.	44·30	1 4 25			
,, 20	11 46	55·6		85 37 10	222 28 0	0		G.S.J.	42·60	1 2 35			
,, 27	11 38	55·6		85 37 35	222 27 55	0		G.S.J.	43·30	1 3 5			
Aug. 3	11 48	55·6		85 39 30	222 27 50	0		G.S.J.	45·00	1 5 5	43·66	1 4 0	1 6 29
,, 10	11 16	55·6		85 39 5	222 27 50	0		G.S.J.	44·40	1 4 40			
,, 17	11 48	55·6		85 36 50	222 28 0	0		G.S.J.	41·60	1 2 15			
,, 24	11 51	55·6		85 38 25	222 27 50	0		G.S.J.	43·70	1 4 0			
,, 31	11 45	55·6		85 38 25	222 27 50	0		G.S.J.	43·60	1 4 0			
Sept. 7	11 44	55·6		85 36 55	222 27 50	0		G.S.J.	42·10	1 2 30	43·15	1 3 27	1 6 13
,, 14	11 42	55·6		85 36 55	222 27 50	0		G.S.J.	42·30	1 2 30			
,, 21	11 42	55·6		85 38 35	222 27 50	0		G.S.J.	44·00	1 4 10			
,, 28	11 54	55·6		85 39 5	222 27 50	0		G.S.J.	44·20	1 4 40			
Oct. 5	11 49	55·6		85 36 45	222 27 50	0		G.S.J.	42·10	1 2 20	43·82	1 4 16	1 6 7
,, 12	11 54	55·6		85 38 15	222 27 50	0		G.S.J.	43·40	1 3 50			
,, 19	11 51	55·6		85 40 0	222 27 55	0		G.S.J.	45·00	1 5 30			
,, 26	11 56	55·6		85 39 50	222 27 50	0		G.S.J.	44·80	1 5 25			
Nov. 2	11 50	55·6		85 38 30	222 27 40	0		G.S.J.	43·90	1 4 15	45·54	1 6 16	1 6 40
,, 9	11 52	55·6		85 40 30	222 27 50	0		G.S.J.	45·30	1 6 5			
,, 16	11 58	55·6		85 41 45	222 27 45	0		G.S.J.	46·20	1 7 25			
,, 23	11 52	55·6		85 42 10	222 27 20	0		G.S.J.	47·50	1 8 15			
,, 30	11 52	55·6		85 38 45	222 26 50	0		G.S.J.	44·80	1 5 20			
Dec. 7	11 47	55·6		85 39 20	222 26 50	0		G.S.J.	45·50	1 5 55	46·45	1 6 56	1 6 15
,, 14	11 46	55·6		85 40 30	222 26 45	0		G.S.J.	46·80	1 7 10			
,, 21	11 37	55·6		85 40 40	222 26 40	0		G.S.J.	46·90	1 7 25			
,, 28	11 44	55·6		85 40 20	222 26 30	0		G.S.J.	46·60	1 7 15			
										The Mean Declination for the year 1905 =		° 1 ′ 5 ″ 57	° 1 ′ 7 ″ 3

Absolute Magnetical Observations, Aliba'g—Table II*a*.

Observations of absolute Declination, 1905.

Taken with Magnetometer No. 3 (Cambridge Scientific Instrument Co.).

1905. Date.	Alibág Civil Time.	Mean Readings. Collimator Magnet. Scale apparently. Erect.	Inverted.	Horizontal Circle with Telescope pointed to. Scale of Collimator Magnet.	Kennery Light House.	Torsion. Mean.	Effect of 90.°	Observer.	Corresponding Reading of Declination Magnetograph.	Absolute Easterly Declination corrected for Torsion.	Monthly Mean. Corresponding Reading of Declination Magnetograph.	Observed Absolute Easterly Declination.	Corrected Mean Monthly Absolute Easterly Declination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	h. m.	Sc. div.	Sc. div.	° ′ ″	° ′ ″	°	Sc. div.		Sc. div.	° ′ ″	Sc. div.	° ′ ″	° ′ ″
Jan. 5	12 27	35·45	36·12	276 35 45	53 20 20	0		G.S.J.	49·00	1 8 12			
„ 12	12 9	35·62	36·05	276 34 5	53 20 45	0		G.S.J.	47·55	1 6 21			
„ 19	12 2	35·37	36·40	276 35 20	53 21 20	0		G.S.J.	47·85	1 6 27	48·01	1 6 53	1 6 41
„ 26	12 18	35·45	36·20	276 34 30	53 20 40	0		G.S.J.	47·65	1 6 33			
Feb. 2	14 7	35·55	35·97	276 32 40	53 19 50	0		N.	46·90	1 5 51			
„ 9	13 10	35·20	36·60	276 35 35	53 20 0	0		G.S.J.	48·60	1 7 40	48·14	1 7 18	1 7 8
„ 16	11 49	35·70	35·95	276 34 35	53 20 10	0		N.	48·20	1 7 36			
„ 23	12 50	35·52	36·27	276 36 40	53 20 50	26 E	0·85	N.	48·85	1 8 5			
Mar. 2	12 7	35·52	36·22	276 34 40	53 19 30	0		N.	48·30	1 7 55			
„ 9	13 17	35·55	36·45	276 34 20	53 20 10	0		N.	46·65	1 6 43			
„ 16	12 30	35·40	36·50	276 34 15	53 19 50	0		G.S.J.	47·15	1 6 47	46·76	1 6 19	1 7 16
„ 23	12 10	35·45	36·57	276 32 10	53 19 35	0		G.S.J.	45·65	1 4 56			
„ 30	12 33	35·35	36·70	276 33 0	53 19 55	0		G.S.J.	46·05	1 5 13			
Apr. 6	12 13	35·46	36·60	276 34 15	53 22 0	0		G.S.J.	45·75	1 4 35			
„ 13	11 5	35·47	36·80	276 34 30	53 20 15	0		G.S.J.	47·30	1 6 24	45·59	1 4 45	1 6 25
„ 20	12 17	35·50	36·35	276 32 10	53 20 10	0		G.S.J.	45·10	1 4 37			
„ 27	12 31	35·44	36·50	276 31 10	53 20 00	10 E	0·71	G.S.J.	44·20	1 3 25			
May 4	12 16	35·66	36·32	276 33 45	53 22 0	0		G.S.J.	45·20	1 4 32			
„ 11	12 31	35·40	36·82	276 34 40	53 22 10	0		G.S.J.	45·25	1 4 34	45·09	1 4 17	1 6 5
„ 18	12 25	35·45	36·80	276 34 0	53 22 5	0		G.S.J.	45·05	1 4 3			
„ 25	12 23	35·45	36·70	276 32 35	53 20 50	0		G.S.J.	44·85	1 3 59			
June 1	12 0	35·45	36·92	276 34 30	53 22 5	0		G.S.J.	45·15	1 4 26			
„ 8	12 20	35·55	36·37	276 32 0	53 20 5	0		G.S.J.	45·15	1 4 33			
„ 15	12 20	35·52	36·60	276 34 20	53 21 50	0		G.S.J.	45·25	1 4 53	44·45	1 3 53	1 6 5
„ 22	12 35	35·62	36·35	276 31 15	53 22 5	0		G.S.J.	42·60	1 1 54			
„ 29	12 24	35·62	36·42	276 31 25	53 20 25	0		G.S.J.	44·10	1 3 39			
July 6	12 24	35·45	36·65	276 32 25	53 21 25	0		G.S.J.	44·00	1 3 16			
„ 13	12 29	35·50	36·77	276 32 25	53 21 15	0		G.S.J.	44·10	1 3 23	43·51	1 2 51	1 5 43
„ 20	12 21	35·50	36·65	276 32 10	53 22 15	0		G.S.J.	42·75	1 2 15			
„ 27	12 12	35·57	36·65	276 31 55	53 21 40	7 E	0·67	G.S.J.	43·20	1 2 32			
Aug. 3	12 28	35·55	36·60	276 33 40	53 21 40	0		G.S.J.	45·15	1 4 25			
„ 10	11 48	35·52	36·57	276 33 10	53 22 10	0		G.S.J.	44·25	1 3 25			
„ 17	12 27	35·40	36·65	276 30 40	53 22 0	0		G.S.J.	41·75	1 0 54	43·70	1 2 59	1 5 32
„ 24	12 28	35·62	36·45	276 31 40	53 21 30	0		G.S.J.	43·75	1 3 5			
„ 31	12 28	35·50	36·32	276 32 0	53 21 30	0		G.S.J.	43·60	1 3 8			
Sep. 7	12 15	35·35	36·82	276 31 0	53 21 35	0		G.S.J.	41·85	1 1 26			
„ 14	12 16	35·45	36·62	276 31 40	53 22 20	20 W	0·64	G.S.J.	42·40	1 1 55	43·06	1 2 27	1 5 17
„ 21	12 23	35·32	36·42	276 32 50	53 22 10	0		G.S.J.	44·15	1 3 12			
„ 28	12 33	35·45	36·60	276 32 40	53 21 45	0		G.S.J.	43·85	1 3 15			
Oct. 5	12 24	35·37	36·72	276 30 35	53 21 0	0		G.S.J.	42·15	1 1 43			
„ 12	12 28	35·57	36·15	276 31 45	53 21 25	0		G.S.J.	43·70	1 3 12			
„ 19	12 25	35·55	36·22	276 32 40	53 21 30	0		G.S.J.	44·80	1 3 57	43·94	1 3 22	1 5 7
„ 26	12 34	35·57	36·27	276 33 35	53 21 45	0		G.S.J.	45·10	1 4 35			
Nov. 2	12 30	35·50	32·00	276 28 30	53 21 35	0		G.S.J.	43·90	1 3 41			
„ 9	12 34	35·32	32·00	276 29 55	53 21 25	0		G.S.J.	45·40	1 5 5			
„ 16	12 41	34·02	33·52	276 35 50	53 21 20	0		G.S.J.	48·15	1 8 24	46·14	1 5 54	1 5 44
„ 23	12 30	33·97	33·65	276 34 55	53 20 50	7 W	0·68	G.S.J.	48·05	1 7 54			
„ 30	12 29	33·97	33·50	276 31 0	53 20 25	0		G.S.J.	45·20	1 4 26			
Dec. 7	12 25	33·95	33·70	276 32 10	53 21 0	0		G.S.J.	45·55	1 4 49			
„ 14	12 26	33·75	33·70	276 33 40	53 21 0	0		G.S.J.	47·00	1 6 7			
„ 21	12 17	34·10	33·62	276 33 15	53 21 30	0		G.S.J.	46·00	1 5 38	46·24	1 5 39	1 5 13
„ 28	12 32	34·00	33·67	276 33 5	53 20 45	0		G.S.J.	46·40	1 6 3			

The Mean declination for the year 1905 = 1° 4′ 43″ | 1° 6′ 1″

Absolute Magnetical Observations, Alibag.—Table III.

OBSERVATONS OF INCLINATION, 1905.

Taken with Dip Circle No. 160 (Cambridge Scientific Instrument Co.) and two 3½ inch Needles Nos. 1 and 2 by Dover.

1905. Date.	Alibag Civil Time (0 to 24 hours). At commencement	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′	° ′	° ′
JAN. 3	12 7	13 10	G.S.J.	1	22 57·6	23 7·6	22 49·0	22 59·2	22 58·3		
,, ,,	13 20	14 20	G.S.J.	2	22 55·9	23 7·8	22 50·4	23 2·9	22 59·2	No. 1	
,, 6	14 3	15 4	G.S.J.	1	23 1·7	23 10·9	22 50·7	23 1·1	23 1·1	22° 58·5′	
,, ,,	15 15	16 16	G.S.J.	2	22 56·4	23 10·1	22 50·6	23 5·0	23 0·5		
,, 10	12 0	13 2	G.S.J.	1	23 1·6	23 6·0	22 50·4	22 58·5	22 59·1		
,, ,,	13 14	14 16	G.S.J.	2	22 55·2	23 7·0	22 50·1	23 3·6	22 59·0		
,, 13	13 58	15 3	G.S.J.	1	23 0·5	23 7·1	22 48·3	23 0·9	22 59·2		
,, ,,	15 14	16 16	G.S.J.	2	22 56·7	23 10·2	22 47·9	23 3·5	22 59·6		
,, 17	12 0	13 0	G.S.J.	1	23 0·9	23 7·8	22 47·0	23 3·6	22 58·6		22 58·9
,, ,,	13 11	14 16	G.S.J.	2	22 55·7	23 7·4	22 49·4	23 2·7	22 58·8		
,, 20	14 2	15 3	G.S.J.	1	23 1·1	23 0·6	22 50·2	22 58·7	22 57·6		
,, ,,	15 15	16 15	G.S.J.	2	22 56·1	23 8·2	22 51·6	23 2·6	22 59·6		
,, 24	14 58	13 3	G.S.J.	1	22 57·8	23 6·6	22 49·9	22 56·5	22 57·7		
,, ,,	13 15	14 17	G.S.J.	2	22 55·5	23 9·7	22 46·9	23 2·4	22 58·6		
,, 27	14 18	15 23	G.S.J.	1	23 0·7	23 2·5	22 51·3	22 59·4	22 58·5		
,, ,,	15 34	16 32	G.S.J.	2	22 55·9	23 10·2	22 49·2	23 5·2	23 0·1	No. 2	
,, 31	12 2	13 5	G.S.J.	1	22 56·6	23 4·7	22 49·7	22 56·0	22 56·7	22° 59·2′	
,, ,,	13 17	14 18	G.S.J.	2	22 53·4	23 6·6	22 48·5	23 2·6	22 57·8		
FEB. 3	13 53	14 55	N.	1	22 49·9	23 12·1	22 54·1	23 9·5	23 1·4		
,, ,,	15 6	16 10	N.	2	22 57·7	23 8·0	22 54·5	23 6·7	23 1·7		
,, 7	11 0	12 0	N.	1	22 55·4	23 4·3	22 47·9	22 59·9	22 56·9	No. 1	
,, ,,	12 10	13 13	N.	2	22 54·1	23 4·6	22 47·3	23 0·6	22 56·6	22° 58·1′	
,, 10	14 18	15 22	G.S.J.	1	22 58·1	23 5·2	22 48·2	22 59·6	22 57·8		
,, ,,	15 35	16 32	G.S.J.	2	22 57·9	23 9·0	22 48·5	23 4·2	22 59·9		
,, 14	11 45	12 44	N.	1	22 58·2	23 2·0	22 50·7	22 58·6	22 57·4		
,, ,,	12 54	13 53	N.	2	22 54·6	23 7·6	22 48·9	23 2·6	22 58·4		22 58·6
,, 17	14 24	15 23	N.	1	22 56·2	23 7·4	22 51·0	22 58·2	22 58·2		
,, ,,	15 34	16 33	N.	2	22 56·2	23 5·1	22 52·6	23 4·2	22 59·5		
,, 21	11 28	12 28	N.	1	22 57·7	23 1·0	22 50·1	22 58·2	22 56·7		
,, ,,	12 40	13 44	N.	2	22 55·7	23 5·6	22 48·8	23 3·8	22 58·5		
,, 24	13 56	14 50	N.	1	23 0·2	23 4·4	22 50·0	23 1·7	22 59·1	No. 2	
,, ,,	15 0	16 2	N.	2	22 53·9	23 10·1	22 48·4	23 4·5	22 59·2	22° 59·2′	
,, 28	11 0	12 2	N.	1	22 59·2	23 3·2	22 53·5	22 54·4	22 57·6		
,, ,,	12 13	13 16	N.	2	22 53·5	23 7·7	22 51·7	23 5·1	22 59·5		
MAR. 3	14 16	15 13	N.	1	23 4·2	23 4·2	22 53·6	23 1·4	23 0·8		
,, ,,	15 23	16 22	N.	2	22 55·6	23 12·6	22 52·4	23 10·9	23 2·9		
,, 7	11 40	12 41	N.	1	22 56·1	23 4·2	22 51·0	23 2·1	22 58·3	No. 1	
,, ,,	12 52	13 48	N.	2	22 55·0	23 9·8	22 52·2	23 9·3	23 1·6	22° 58·8′	
,, 10	14 17	15 12	N.	1	22 59·6	23 10·3	22 48·1	23 2·0	23 0·0		
,, ,,	15 22	16 18	N.	2	22 54·2	23 9·7	22 49·2	23 6·2	22 59·8		
,, 14	11 45	12 48	G.S.J.	1	23 3·6	23 3·6	22 49·4	22 57·4	22 58·5		
,, ,,	13 0	13 57	G.S.J.	2	22 57·5	23 7·0	22 52·7	23 0·6	22 59·4		
,, 17	14 18	15 20	G.S.J.	1	23 1·5	23 7·7	22 53·4	23 0·6	23 0·8		
,, ,,	15 32	16 32	G.S.J.	2	22 57·9	23 5·2	22 53·7	23 5·0	23 0·4		22 59·6
,, 21	11 40	12 42	G.S.J.	1	23 0·0	23 0·6	22 50·4	22 54·2	22 56·3		
,, ,,	12 55	13 55	G.S.J.	2	22 54·4	23 6·9	22 48·9	23 4·0	22 58·5		
,, 24	14 3	15 5	G.S.J.	1	22 59·7	23 7·9	22 45·0	22 59·1	22 57·9		
,, ,,	15 17	16 17	G.S.J.	2	22 54·1	23 10·3	22 48·5	23 6·3	22 59·8		
,, 28	11 43	12 45	G.S.J.	1	22 58·6	23 5·3	22 47·8	22 58·6	22 57·6	No. 2	
,, ,,	12 56	13 54	G.S.J.	2	22 57·5	23 9·1	22 51·9	23 6·7	23 1·3	23° 0·4′	
,, 31	14 2	15 4	G.S.J.	1	23 1·1	23 9·5	22 48·6	22 58·6	22 59·4		
,, ,,	15 15	16 16	G.S.J.	2	22 57·0	23 9·2	22 50·4	23 3·6	23 0·0		

1905. Date.	Alibág Civil Time (0 to 24 hours). At commencement	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′	° ′	
APR. 4	11 48	12 51	G.S.J.	1	23 1·5	23 5·9	22 50·9	23 1·5	22 59·9		
,, ,,	13 2	14 0	G.S.J.	2	22 57·0	23 12·3	22 52 4	23 6·1	23 1·9		
,, 7	14 18	15 20	G.S.J.	1	23 2·7	23 8·4	22 53·2	23 0·1	23 1·1	No. 1	
,, ,,	15 30	16 33	G.S.J.	2	22 57·6	23 10·6	22 52·1	23 6·1	23 1·6	22° 59·9′	
,, 11	11 50	12 52	G.S.J.	1	22 59·6	23 6·1	22 48·9	22 57·3	22 58·0		
,, ,,	13 2	14 0	G.S.J.	2	22 56·6	23 12·6	22 47·9	23 4·5	23 0·4		
,, 14	14 5	15 9	G.S.J.	1	23 1·1	23 10·0	22 49·2	23 2·0	23 0 6		
,, ,,	15 20	16 17	G.S.J.	2	22 54·5	23 8·6	22 53·7	23 7·8	23 1·1		
,, 18	11 42	12 42	G.S.J.	1	23 0·1	23 4·4	22 51·7	22 58·1	22 58·6		23 0·4
,, ,,	12 54	13 54	G.S.J.	2	23 3·9	23 5 2	22 54·1	23 0·4	23 0·9		
,, 21	14 6	15 8	G.S.J.	1	23 6·1	23 4·9	22 55·6	22 56·9	23 0·9		
,, ,,	15 20	16 17	G.S.J.	2	23 2·7	23 3·7	22 53·1	23 3·6	23 0·8		
,, 25	11 43	12 46	G.S.J.	1	22 59·1	23 7·2	22 47·4	23 0·0	22 58·4	No. 2	
,, ,,	12 58	13 57	G.S.J.	2	22 54·8	23 8·0	22 50·2	23 4·0	22 59·2	23° 0·8′	
,, 28	14 8	15 10	G.S.J.	1	23 4·4	23 8·4	22 51·2	23 4·3	23 2·1		
,, ,,	15 21	16 18	G.S.J.	2	22 57·7	23 10·4	22 51·2	23 4·5	23 0 9		
MAY 2	11 50	12 50	G.S.J.	1	22 56 7	23 7·2	22 48·7	22 58·9	22 57·9		
,, ,,	13 2	14 0	G.S.J.	2	23 0·0	23 5·2	22 53·4	22 56·9	22 58·9		
,, 5	14 18	15 20	G.S.J.	1	23 5·5	23 9·1	22 54·4	23 0·1	23 2·3	No. 1	
,, ,,	15 32	16 29	G.S.J.	2	23 0·5	23 8·6	22 55·8	23 2·0	23 1·7	22° 59·6′	
,, 9	11 52	12 52	G.S.J.	1	23 2·1	23 2·6	22 49·9	22 55·4	22 57·5		
,, ,,	13 2	13 58	G.S.J.	2	22 59 2	23 6·9	22 52·6	23 3·5	23 0·5		
,, 12	14 6	15 6	G.S.J.	1	22 58·8	23 9·9	22 50·2	23 1·9	23 0·2		
,, ,,	15 18	16 17	G.S.J.	2	22 57·9	23 10·8	22 52·1	23 5·1	23 1·5		
,, 16	11 46	12 50	G.S.J.	1	23 0·4	23 5·7	22 49·1	22 57·6	22 58·2		
,, ,,	13 2	13 58	G.S.J.	2	22 58·5	23 8·8	22 50·7	23 3·2	23 0·3		23 0·2
,, 19	14 5	15 5	G.S.J.	1	23 4·6	23 9·6	22 52·6	22 57·5	23 1·1		
,, ,,	15 16	16 17	G.S.J.	2	22 58·2	23 9·2	22 53·2	23 3·7	23 1·1		
,, 23	11 48	12 49	G.S.J.	1	22 59·9	23 0·2	22 48·6	22 55·1	22 55·9		
,, ,,	13 0	14 0	G.S.J.	2	22 54·8	23 6·4	22 48·9	23 0·7	22 57·7		
,, 26	14 7	15 10	G.S.J.	1	23 5·5	23 8·5	22 53·9	23 1·1	23 2·2	No. 2	
,, ,,	15 21	16 18	G.S.J.	2	23 0·9	23 11·8	22 53·8	23 6·2	23 3·2	23° 0·8′	
,, 30	12 0	13 2	G.S.J.	1	23 3·1	23 7·9	22 54·9	22 58 6	23 1·1		
,, ,,	13 14	14 14	G.S.J.	2	22 58·1	23 11·9	22 52·5	23 7·4	23 2·5		
JUNE 2	14 20	15 22	G.S.J.	1	23 6·4	23 7·6	22 52·6	23 2·4	23 2·2		
,, ,,	15 33	16 42	G.S.J.	2	22 59·1	23 10·4	22 51·6	23 6·1	23 1·8		
,, 6	11 57	12 55	G.S.J.	1	23 2·4	23 8·2	22 48·4	22 57·9	22 59·2	No. 1	
,, ,,	13 6	14 2	G.S.J.	2	22 56·1	23 9·0	22 52·3	23 1·7	22 59·8	23° 0·8′	
,, 9	14 6	15 8	G.S.J.	1	23 2·3	23 10·1	22 48·8	22 57·9	22 59·8		
,, ,,	15 20	16 18	G.S.J.	2	22 59·6	23 3·9	22 55·0	23 5·2	23 0·9		
,, 13	11 50	12 49	G.S.J.	1	22 57·5	23 7·6	22 52·0	22 59·6	22 59·2		
,, ,,	13 0	13 58	G.S.J.	2	22 54·9	23 9·6	22 51·7	23 6·4	23 0·6		
,, 16	13 57	15 0	G.S.J.	1	23 3 6	23 10·6	22 52·7	23 1·4	23 2·1		
,, ,,	15 12	16 15	G.S.J.	2	22 59·9	23 12·9	22 55·6	23 9·1	23 4·4		23 1·4
,, 20	11 45	12 45	G.S.J.	1	23 0·6	23 8·4	22 52·1	23 0·4	23 0.4		
,, ,,	12 55	13 56	G.S.J.	2	23 1·4	23 10·1	22 50·9	23 5·5	23 2·0		
,, 23	14 5	15 5	G.S.J.	1	23 3·8	23 12.8	22 53·1	23 4·1	23 3·4		
,, ,,	15 17	16 17	G.S.J.	2	23 1·6	23 16·6	22 57·6	23 5·2	23 5·2		
,, 27	11 46	12 45	G.S.J.	1	22 56·1	23 9·2	22 53·4	22 57·7	22 59·1		
,, ,,	12 57	13 56	G.S.J.	2	23 2·6	23 6·0	22 56·3	23 1·7	23 1·6	No. 2	
,, 30	14 6	15 8	G.S.J.	1	23 0·7	23 9·0	22 52·5	23 4·1	23 1·6	23° 2·1′	
,, ,,	15 20	16 17	G.S.J.	2	23 3·1	23 9·7	22 55·2	23 1·9	23 2·5		

1905. Date.	Alibág Civil Time (0 to 24 hours). At commencement	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
JULY 4	11 53	12 52	G.S.J.	1	22 57·0	23 10·8	22 48·9	22 59·9	22 59·1		
,, ,,	13 2	14 0	G.S.J.	2	22 58·7	23 4·8	22 51·4	23 3·1	22 59·5		
,, 7	14 5	15 7	G.S.J.	1	23 8·7	23 7·6	22 55·6	22 57·6	23 2·4	No. 1	
,, ,,	15 18	16 16	G.S.J.	2	22 58·4	23 11·0	22 54·0	23 6·2	23 2·4	23° 0·9′	
,, 11	11 45	12 47	G.S.J.	1	23 3·5	23 1·7	22 56·9	22 52·0	22 58·5		
,, ,,	13 0	13 57	G.S.J.	2	22 59·1	23 10·5	22 51·7	23 7·2	23 2·1		
,, 14	14 5	15 5	G.S.J.	1	23 7·1	23 5·6	22 57·0	23 1·1	23 2·7		
,, ,,	15 16	16 15	G.S.J.	2	22 59·4	23 11·5	22 53·6	23 8·2	23 3·2		23 1·5
,, 18	11 52	12 50	G.S.J.	1	23 7·7	23 5·3	22 54·8	22 56·1	23 1·0		
,, ,,	13 0	13 57	G.S.J.	2	22 58·2	23 8·7	22 53·9	23 7·0	23 1·9		
,, 21	14 18	15 20	G.S.J.	1	23 6·7	23 5·0	22 59·9	23 0·7	23 3·1		
,, ,,	15 32	16 30	G.S.J.	2	23 1·9	23 11·9	22 56·1	23 7·2	23 4·3		
,, 25	11 44	12 45	G.S.J.	1	23 3·3	23 4·2	22 54·0	22 54·2	22 58·9	No. 2	
,, ,,	12 56	13 55	G.S.J.	2	22 58·6	23 5·6	22 55·9	23 2·6	23 0·7	23° 2·2′	
,, 28	13 58	15 2	G.S.J.	1	23 3·7	23 5·2	22 56·4	22 59·6	23 1·2		
,, ,,	15 14	16 15	G.S.J.	2	23 2·2	23 7·7	22 57·9	23 5·4	23 3·3		
AUG. 1	11 50	12 52	G.S.J.	1	23 2·9	23 3·8	22 56·7	22 58·9	23 0·6		
,, ,,	13 2	13 58	G.S.J.	2	22 58·1	23 6·4	22 54·6	23 5·6	23 1·2		
,, 4	14 2	15 5	G.S.J.	1	23 7·9	23 11·9	22 58·2	23 2·7	23 5·2	No. 1	
,, ,,	15 17	16 14	G.S.J.	2	23 2·0	23 13·3	22 58·2	23 7·7	23 5·3	23° 2·0′	
,, 8	11 50	12 49	G.S.J.	1	23 0·8	23 10·6	22 51·7	23 1·5	23 1·1		
,, ,,	13 0	13 58	G.S.J.	2	23 1·2	23 13·5	22 56·1	23 5·6	23 4·1		
,, 11	14 8	15 10	G.S.J.	1	23 6·7	23 10·0	22 55·3	23 1·4	23 3·3		
,, ,,	15 20	16 19	G.S.J.	2	23 1·6	23 12·9	22 56·3	23 8·6	23 4·8		
,, 15	11 48	12 50	G.S.J.	1	23 6·0	23 5·1	22 55·4	22 54·6	23 0·3		23 2·8
,, ,,	13 0	13 58	G.S.J.	2	23 1·1	23 8·9	22 56·4	23 5·2	23 2·9		
,, 18	14 5	15 8	G.S.J.	1	23 2·4	23 8·3	22 53·8	22 59·2	23 0·9		
,, ,,	15 20	16 18	G.S.J.	2	23 5·1	23 9·1	22 58·2	23 3·2	23 3·9		
,, 22	11 44	12 45	G.S.J.	1	23 0·6	23 12·0	22 50·7	23 3·3	23 1·6		
,, ,,	12 56	13 54	G.S.J.	2	23 3·3	23 9·4	22 56·2	23 3·9	23 3·2		
,, 25	14 5	15 5	G.S.J.	1	23 1·7	23 11·1	22 52·2	23 4·1	23 2·3	No. 2	
,, ,,	15 17	16 16	G.S.J.	2	23 3·2	23 8·4	22 58·0	23 3·1	23 3·2	23° 3·6′	
,, 29	11 53	12 52	G.S.J.	1	23 1·2	23 9·9	22 57·1	23 2·6	23 2·7		
,, ,,	13 3	14 0	G.S.J.	2	23 2·6	23 11·6	22 56·2	23 4·9	23 3·8		
SEPT. 1	14 6	15 5	G.S.J.	1	23 4·3	23 4·8	22 58·0	23 1·1	23 2·0		
,, ,,	15 16	16 12	G.S.J.	2	23 5·2	23 10·5	22 58·5	23 4·1	23 4·6		
,, 5	11 50	12 51	G.S.J.	1	23 0·4	23 7·1	22 52·4	22 59·7	22 59·9	No. 1	
,, ,,	13 2	13 58	G.S.J.	2	23 2·8	23 9·2	22 54·3	23 4·5	23 2·7	23° 2·8′	
,, 8	14 0	15 3	G.S.J.	1	22 59·3	23 8·0	22 53·2	23 3·3	23 0·9		
,, ,,	15 14	16 14	G.S.J.	2	23 2·0	23 10·7	22 55·7	23 8·0	23 4·1		
,, 12	11 46	12 48	G.S.J.	1	22 58·8	23 11·2	22 52·4	23 5·6	23 2·0		
,, ,,	13 0	13 58	G.S.J.	2	23 3·8	23 10·5	22 56·2	23 4·1	23 3·6		
,, 15	14 4	15 4	G.S.J.	1	23 1·9	23 10·2	22 56·9	23 4·1	23 3·3		23 3·6
,, ,,	15 15	16 12	G.S.J.	2	23 3·0	23 9·3	22 58·0	23 4·6	23 3·7		
,, 19	11 40	12 42	G.S.J.	1	23 4·2	23 9·7	22 57·5	23 5·1	23 4·1		
,, ,,	12 53	13 53	G.S.J.	2	23 4·3	23 8·0	23 1·2	23 7·6	23 5·3		
,, 22	14 2	15 4	G.S.J.	1	23 4·2	23 12·9	22 57·7	23 6·2	23 5·2		
,, ,,	15 15	16 12	G.S.J.	2	23 4·9	23 12·2	22 58·3	23 5·7	23 5·3		
,, 26	11 42	12 44	G.S.J.	1	23 4·6	23 7·7	22 57·6	23 1·2	23 2·8	No. 2	
,, ,,	12 55	13 53	G.S.J.	2	23 3·7	23 9·4	23 0·7	23 7·2	23 5·2	23° 4·4′	
,, 29	14 4	15 5	G.S.J.	1	23 7·5	23 9·9	22 58·6	23 3·9	23 5·0		
,, ,,	15 16	16 15	G.S.J.	2	23 5·0	23 11·3	22 59·4	23 6·3	23 5·5		

1905. Date.	Alibág Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
Oct. 3	12 7	13 11	G.S.J.	1	23 0·7	23 2·9	22 56·7	22 57·6	22 59·5		
,, ,,	13 21	14 18	G.S.J.	2	23 4·7	23 8·4	22 56·0	23 4·3	23 3·3		
,, 6	14 0	15 2	G.S.J.	1	23 8·4	23 11·1	23 1·1	23 3·6	23 6·0	No. 1	
,, ,,	15 14	16 13	G.S.J.	2	23 5·3	23 14·3	23 0·1	23 7·3	23 6·7	23° 2·7′	
,, 10	11 45	12 46	G.S.J.	1	23 3·7	23 5·7	22 56·6	23 0·3	23 1·6		
,, ,,	12 57	13 55	G.S.J.	2	23 4·9	23 9·2	22 57·7	23 4·4	23 4·0		
,, 13	14 5	15 6	G.S.J.	1	23 5·5	23 9·7	22 55·0	23 4·2	23 3·6		
,, ,,	15 17	16 17	G.S.J.	2	23 4·6	23 12·8	22 57·1	23 5·4	23 5·0		
,, 17	11 52	12 48	G.S.J.	1	23 2·9	23 11·1	22 54·4	23 1·1	23 2·4		
,, ,,	12 58	13 57	G.S.J.	2	23 2·9	23 9·7	22 57·2	23 5·2	23 3·7		23 3·5
,, 20	14 8	15 9	G.S.J.	1	23 4·1	23 11·1	22 55·1	23 2·1	23 3·1		
,, ,,	15 20	16 16	G.S.J.	2	23 3·6	23 11·5	22 55·5	23 5·2	23 3·9		
,, 24	11 45	12 45	G.S.J.	1	23 3·6	23 9·9	22 54·2	23 1·9	23 2·4		
,, ,,	12 56	13 55	C.S.J.	2	23 4·2	23 9·5	22 57·0	23 5·9	23 4·1		
,, 27	14 4	15 5	G.S.J.	1	23 4·9	23 10·6	22 55·2	23 3·9	23 3·6	No. 2	
,, ,,	15 16	16 14	G.S.J.	2	23 3·4	23 11·7	22 58·1	23 6·6	23 4·9	23° 4·4′	
,, 31	11 50	12 52	G.S.J.	1	23 3·3	23 10·2	22 54·8	23 0·7	23 2·2		
,, ,,	13 2	13 59	G.S.J.	2	23 4·0	23 9·4	22 57·0	23 5·1	23 3·9		
Nov. 3	14 5	15 6	G.S.J.	1	23 6·4	23 10·4	22 56·9	22 59·7	23 3·3		
,, ,,	15 18	16 16	G.S.J.	2	23 2·2	23 10·6	22 58·5	23 5·5	23 4·2		
,, 7	11 55	12 54	G.S.J.	1	23 4·7	23 5·7	22 53·7	23 2·9	23 1·7	No. 1	
,, ,,	13 4	14 0	G.S.J.	2	23 3·9	23 10·2	22 56·7	23 6·6	23 4·3	23° 4·5′	
,, 10	14 4	15 6	G.S.J.	1	23 9·8	23 8·7	22 59·2	23 1·0	23 4·7		
,, ,,	15 17	16 15	G.S.J.	2	23 4·2	23 11·1	22 57·5	23 10·7	23 5·9		
,, 14	11 50	12 52	G.S.J.	1	23 5·9	23 13·1	22 59·2	23 1·8	23 5·0		
,, ,,	13 3	14 2	G.S.J.	2	23 6·9	23 10·2	23 0·6	23 8·2	23 6·5		23 5·0
,, 17	14 4	15 5	G.S.J.	1	23 10·6	23 15·9	22 55·1	23 7·9	23 7·4		
,, ,,	15 16	16 14	G.S.J.	2	23 5·4	23 13·8	22 57·8	23 8·0	23 6·2		
,, 21	11 48	12 48	G.S.J.	1	22 59·9	23 11·6	22 58·4	23 6·9	23 4·2		
,, ,,	12 58	13 56	G.S.J.	2	23 4·0	23 13·2	22 57·6	23 8·7	23 5·9		
,, 24	13 48	14 50	G.S.J.	1	23 5·6	23 13·0	22 57·7	23 6·0	23 5·6	No. 2	
,, ,,	15 0	15 58	G.S.J.	2	23 0·0	23 16·6	22 58·5	23 9·2	23 6·1	23° 5·5′	
,, 28	11 40	12 40	G.S.J.	1	23 3·6	23 13·6	22 52·7	23 6·3	23 4·0		
,, ,,	12 50	13 48	G.S.J.	2	23 2·7	23 14·1	22 56·6	23 7·9	23 5·3		
Dec. 1	14 4	15 6	G.S.J.	1	23 5·0	23 10·9	22 55·7	23 5·8	23 4·3		
,, ,,	15 17	16 16	G.S.J.	2	23 2·7	23 17·5	22 56·3	23 9·8	23 6·6		
,, 5	11 43	12 44	G.S.J.	1	23 4·2	23 14·4	22 55·9	23 7·9	23 5·6	No. 1	
,, ,,	12 55	13 56	G.S.J.	2	23 4·9	23 14·4	22 57·6	23 9·0	23 6·5	23° 3·9′	
,, 8	14 5	15 8	G.S.J.	1	23 1·4	23 12·9	22 55·9	23 7·4	23 4·4		
,, ,,	15 18	16 16	G.S.J.	2	23 5·2	23 13·4	22 58·6	23 6·5	23 5·9		
,, 12	11 36	12 38	G.S.J.	1	22 57·7	23 9·2	22 53·1	23 4·2	23 1·0		
,, ,,	12 48	13 45	G.S.J.	2	23 3·1	23 10·2	22 55·6	23 4·9	23 3·4		
,, 15	14 4	15 5	G.S.J.	1	23 4·2	23 12·0	23 0·1	23 5·4	23 5·4		23 4·7
,, ,,	15 16	16 13	G.S.J.	2	23 2·7	23 14·4	22 59·2	23 9·1	23 6·3		
,, 19	11 52	12 52	G.S.J.	1	23 4·9	23 9·9	22 57·4	23 4·0	23 4·0		
,, ,,	13 2	13 58	G.S.J.	2	23 3·3	23 11·7	22 56·9	23 6·1	23 4·5		
,, 22	13 38	14 36	G.S.J.	1	23 4·5	23 11·0	22 55·4	23 3·2	23 3·5		
,, ,,	14 46	15 42	G.S.J.	2	23 3·2	23 13·1	22 58·3	23 8·2	23 5·7		
,, 26	11 53	12 52	G.S.J.	1	23 2·8	23 7·6	22 58·3	23 4·5	23 3·3	No. 2	
,, ,,	13 2	14 0	G.S.J.	2	23 4·0	23 12·2	22 58·7	23 7·7	23 5·6	23° 5·5′	
,, 29	14 5	15 7	G.S.J.	1	23 4·2	23 12·6	22 54·7	23 4·1	23 3·9		
,, ,,	15 18	16 15	G.S.J.	2	23 3·1	23 13·9	22 56·6	23 6·4	23 5·0		

The Mean Dip for the year ... { With Needle No. 1 = 23° 1·0′ / With Needle No. 2 = 23° 2·3′

The Mean Dip for the year 1905 = 23° 17′

Absolute Magnetical Observations, Alibag—Table III-*a*.

SUPPLEMENTARY OBSERVATIONS OF INCLINATION, 1905.

Taken with Dip Circle No. 160 (Cambridge Scientific Intrument Co.) and two Supplementary 3½ inch Needles Nos. 1 and 2 by Dover.

1905. Date.	Alibag Civil Time (0 to 24 hours). At commencement.		At conclusion.		Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.		End of Needle Dipping. A. Face of Circle. West.		End of Needle Dipping. B. Face of Circle. East.		End of Needle Dipping. B. Face of Circle. West.		Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h.	m.	h.	m.			°	′	°	′	°	′	°	′	° ′		° ′
JAN. 7	12	5	13	4	G.S.J.	2	22	57·0	23	2·9	22	55·6	23	0·7	22 59·0	No. 1	
,, 14	11	46	12	48	G.S.J.	1	22	41·9	22	55·4	23	1·1	23	12·4	22 57·7	22 57·1	22 57·6
,, 21	12	3	13	3	G.S.J.	2	22	55·5	22	59·7	22	54·6	22	59·8	22 57·4	No. 2	
,, 28	12	3	13	7	G.S.J.	1	22	41·7	22	56·1	22	57·7	23	10·7	22 56·5	22 58·2	
FEB. 4	12	12	13	8	N.	2	23	2·2	23	2·5	22	54·4	23	5·9	23 1·2	No. 1	
,, 11	12	7	13	6	G.S.J.	1	22	41·0	22	56·9	22	57·0	23	12·6	22 56·9	22 57·3	22 58·7
,, 18	11	44	12	43	N.	2	22	56·1	23	6·1	22	51·4	23	3·0	22 59·1	No. 2	
,, 25	11	40	12	40	N.	1	22	43·7	22	57·4	22	56·8	23	13·1	22 57·7	23 0·1	
MAR. 4	11	19	12	20	N.	2	23	0·6	23	6·1	22	56·0	23	3·9	23 1·6	No. 1	
,, 11	11	7	12	7	N.	1	22	42·1	22	56·9	22	58·1	23	12·2	22 57·3	22 57·4	22 59·0
,, 18	11	40	12	40	G.S.J.	2	22	58·9	23	2·0	22	55·1	23	2·2	22 59·5	No. 2	
,, 25	11	30	12	32	G.S.J.	1	22	44·7	22	57·1	22	58·5	23	9·8	22 57·5	23 0·5	
APR. 1	11	45	12	44	G.S.J.	2	22	57·6	23	4·4	22	55·1	23	0·6	22 59·4	No. 1	
,, 8	11	40	12	46	G.S.J.	1	22	46·4	22	57·2	22	59·2	23	12·1	22 58·7	22 58·3	
,, 15	12	46	13	46	G.S.J.	2	22	56·4	23	2·0	22	54·1	23	1·6	22 58·5	No. 2	22 58·7
,, 22	11	47	12	48	G.S.J.	1	22	43·1	22	55·0	23	0·9	23	13·2	22 58·0	22 59·0	
,, 29	11	50	12	50	G.S.J.	2	22	54·0	23	5·7	22	55·0	23	1·7	22 59·1		
MAY 6	11	50	12	47	G.S.J.	1	22	49·7	22	58·9	23	3·1	23	9·9	23 0·4	No. 1	
,, 13	11	55	12	55	G.S.J.	2	22	57·8	23	0·6	22	55·7	23	1·2	22 58·8	22 59·3	22 58·8
,, 20	11	56	12	58	G.S.J.	1	22	45·1	22	57·3	22	59·9	23	11·1	22 58·3	No. 2	
,, 27	12	4	13	0	G.S.J.	2	22	55·3	22	58·9	22	55·6	23	0·9	22 57·7	22 58·2	
JUNE 3	11	55	12	55	G.S.J.	1	22	47·2	22	57·8	23	2·6	23	10·2	22 59·4	No. 1	
,, 10	11	55	12	55	G.S.J.	2	22	58·2	23	2·6	22	56·7	23	4·5	23 0·5	22 59·3	23 0·0
,, 17	11	47	12	49	G.S.J.	1	22	45·8	22	55·0	23	3·3	23	13·1	22 59·3	No. 2	
,, 24	11	50	12	52	G.S.J.	2	23	0·2	23	0·3	23	0·9	23	2·7	23 1·0	23 0·7	

1905. Date.	Alibag Civil Time (0 to 24 hours). At commencement.	At conclusion.	Observer.	Needle marked.	End of Needle Dipping. A. Face of Circle. East.	A. Face of Circle. West.	B. Face of Circle. East.	B. Face of Circle. West.	Mean Dip.	Monthly Mean for each Needle.	Monthly Mean.
	h. m.	h. m.			° ′	° ′	° ′	° ′	° ′		° ′
July 1	12 3	13 0	G.S.J.	1	22 48·8	22 57·9	23 5·7	23 12·9	23 1·3	No. 1 ° ′ 23 1·8	23 1·3
„ 8	11 55	12 53	G.S.J.	2	23 5·3	22 56·6	23 3·6	23 0·7	23 1·5		
„ 15	11 52	12 55	G.S.J.	1	22 47·2	22 57·1	23 4·7	23 10·1	22 59·8	No. 2 ° ′ 23 0·4	
„ 22	11 45	12 46	G.S.J.	2	22 58·0	23 0·6	22 57·9	23 1·0	22 59·4		
„ 29	11 50	12 50	G.S.J.	1	22 51·2	23 4·2	23 5·4	23 16·3	23 4·3		
Aug. 5	11 55	12 54	G.S.J.	2	23 3·2	23 2·7	23 1·2	23 3·8	23 2·7	No. 1 ° ′ 23 1·2	23 1·6
„ 12	11 50	12 54	G.S.J.	1	22 45·9	22 56·1	23 4·2	23 14·6	23 0·2		
„ 19	11 46	12 43	G.S.J.	2	23 2·7	23 1·8	23 1·2	22 59·7	23 1·3	No. 2 ° ′ 23 2·0	
„ 26	11 47	12 49	G.S.J.	1	22 49·5	22 59·7	23 6·4	23 13·7	23 2·3		
Sept. 2	11 52	12 48	G.S.J.	2	23 5·7	22 59·4	23 2·5	22 57·5	23 1·3	No. 1 ° ′ 23 1·5	23 1·6
„ 9	11 28	12 33	G.S.J.	1	22 47·9	22 55·6	23 4·1	23 11·2	22 59·7		
„ 16	11 48	12 45	G.S.J.	2	23 3·6	23 2·1	22 57·1	23 2·2	23 1·2	No. 2 ° ′ 23 1·7	
„ 23	11 46	12 45	G.S.J.	1	22 49·1	22 57·7	23 9·6	23 16·7	23 3·3		
„ 30	11 50	12 46	G.S.J.	2	23 5·4	23 1·4	23 3·0	23 1·0	23 2·7		
Oct. 7	11 45	12 43	G.S.J.	1	22 51·2	22 55·7	23 10·1	23 13·4	23 2·6	No. 1 ° ′ 23 2·8	23 2·9
„ 14	11 50	12 48	G.S.J.	2	23 8·4	23 1·9	23 6·0	22 59·1	23 3·8		
„ 21	11 50	12 46	G.S.J.	1	22 50·4	22 58·3	23 7·9	23 15·4	23 3·0	No. 2 ° ′ 23 3·0	
„ 28	11 50	12 50	G.S.J.	2	23 2·8	23 4·0	22 59·8	23 2·6	23 2·3		
Nov. 4	11 54	12 50	G.S.J.	1	22 53·6	22 59·0	23 8·6	23 11·7	23 3·2	No. 1 ° ′ 23 5·0	23 4·6
„ 11	11 52	12 59	G.S.J.	2	23 5·4	23 3·0	23 2·2	23 2·0	23 3·1		
„ 18	11 55	13 0	G.S.J.	1	22 54·2	23 4·0	23 9·4	23 19·9	23 6·9	No. 2 ° ′ 23 4·2	
„ 25	11 56	12 52	G.S.J.	2	23 7·2	23 3·9	23 7·2	23 3·4	23 5·4		
Dec. 2	11 48	12 48	G.S.J.	1	22 48·6	22 59·1	23 6·2	23 17·6	23 2·9	No. 1 ° ′ 23 4·1	23 4·1
„ 9	11 45	12 45	G.S.J.	2	23 1·4	23 2·2	23 2·9	23 1·3	23 1·9		
„ 16	11 5	12 5	G.S.J.	1	22 50·6	22 59·7	23 9·5	23 16·2	23 4·0	No. 2 ° ′ 23 4·2	
„ 23	11 23	12 17	G.S.J.	2	23 11·5	23 5·5	23 7·2	23 1·9	23 6·5		
„ 30	11 55	12 50	G.S.J.	1	22 51·0	23 3·4	23 10·4	23 16·7	23 5·4		

The Mean Dip for the year ... { With Needle No. 1 = ° ′ 23 0·4 / With Needle No. 2 = ° ′ 23 1·0

The Mean Dip for the year 1905 = ° ′ 23 0·7

APPENDIX A.

HOURLY MEANS OF DECLINATION, HORIZONTAL FORCE AND VERTICAL FORCE.

(AS DERIVED FROM SELECTED QUIET DAYS)
FOR THE YEARS
1901 to 1905.

While continuing the usual process adopted in this Observatory for obtaining the diurnal variation from all (unrestricted) days of the year, Tables VII to XXXVII give the results of magnetograph curves standardised by absolute observations on the lines suggested by the Committee of the British Association. The selected quiet days suitable for the determination of diurnal variation for the years 1901 to 1905 are the same as those selected by the Astronomer Royal. It has been carefully noted that the days selected as quiet by the Astronomer Royal are invariably "calm" days at Bombay, or, in a very few cases, days of "small" disturbance, and the diurnal variation has therefore been obtained throughout the period 1894—1905 from these quiet days without any change. Quiet days have now to be selected for the Magnetic Survey of India, such as may be adopted over the whole of the Continent of India, for the derivation of the diurnal inequality and therefore from the year 1901 the selected quiet days have been obtained independently, also from the Bombay Records. Tables I to IV give the dates of Magnetic disturbances at Colába, and Tables I*a* to IV*a* the days selected as quiet from the Colába records for the years 1902 to 1905.

Government Observatory, Bombay.

TABLE I.—*Dates of Magnetic Disturbances at Colába, Bombay, 1902.*

1902.	MONTH.											
	77½	70	77½	75	77½	75	77½	77½	75	77½	75	77½
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	C.	C.	S.	S.	C.	S.	C.	S.	S.	S.	S.	S.
2	C.	C.	C.	C.	C.	C.	C.	C.	C.	C.	C.	S.
3	S.	C.	C.	C.	C.	C.	C.	C.	C.	C.	C.	C.
4	S.	S.	C.	C.	C.	C.	S.	C.	S.	C.	C.	C.
5	C.	S.	S.	C.	C.	C.	C.	C.	C.	C.	S.	C.
6	C.	S.	C.	C.	C.	S.	C.	C.	C.	C.	S.	C.
7	C.	M.	S.	C.	C.	C.	S.	C.	C.	C.	C.	C.
8	S.	S.	S.	S.	S.	C.	S.	S.	C.	C.	C.	C.
9	C.	S.	S.	S.	M.	C.	S.	S.	C.	C.	C.	C.
10	C.	S.	C.	S.	M.	C.	S.	S.	C.	C.	C.	C.
11	C.	S.	S.	S.	C.	S.	C.	C.	C.	M.	C.	S.
12	C.	S.	S.	S.	C.	S.	S.	C.	C.	C.	S.	S.
13	C.	S.	C.	C.	C.	C.	S.	S.	S.	C.	S.	C.
14	C.	S.	C.	S.	C.	S.	C.	C.	C.	S.	C.	S.
15	M.	C.	S.	C.	C.	S.	S.	S.	C.	C.	S.	C.
16	S.	S.	C.	C.	C.	C.	C.	S.	S.	C.	S.	C.
17	S.	C.	C.	C.	C.	C.	C.	S.	S.	C.	C.	C.
18	C.	C.	S.	C.	C.	C.	C.	C.	C.	C.	S.	C.
19	C.	C.	S.	C.	S.	C.	C.	C.	M.	C.	S.	C.
20	C.	S.	C.	M.	S.	C.	C.	M.	S.	C.	S.	C.
21	C.	S.	C.	S.	S.	C.	C.	S.	S.	C.	S.	C.
22	C.	C.	C.	S.	C.	C.	C.	S.	C.	C.	S.	C.
23	C.	C.	C.	C.	C.	C.	S.	M.	S.	C.	M.	S.
24	S.	S.	M.	C.	C.	C.	S.	S.	C.	S.	S.	S.
25	C.	S.	S.	C.	C.	C.	S.	M.	S.	C.	S.	S.
26	S.	S.	C.	C.	C.	C.	S.	S.	C.	C.	S.	S.
27	C.	S.	C.	C.	C.	C.	S.	C.	S.	C.	C.	C.
28	C.	C.	C.	C.	C.	C.	C.	S.	M.	C.	C.	C.
29	C.		C.	C.	C.	S.	S.	C.	S.	S.	C.	C.
30	C.		C.	C.	S.	S.	C.	C.	S.	S.	C.	M.
31	C.		C.		C.		C.	S.		M.		C.
Total C. ...	23	12	20	17	23	16	17	16	11	18	15	14
Total S. ...	7	15	10	11	6	14	13	14	17	11	13	17
Total M. ...	1	1	1	1	2	0	1	1	2	2	2	0
Total G. ...	0	0	0	1	0	0	0	0	0	0	0	0
Total V.G. ...	0	0	0	0	0	0	0	0	0	0	0	0

TABLE II.—*Dates of Magnetic Disturbances at Colába, Bombay, 1903.*

1903.	MONTH.											
Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	C.	C.	S.	M.	C.	G.	S.	C.	S.	S.	G.	S.
2	S.	C.	S.	C.	S.	M.	S.	S.	C.	C.	M.	S.
3	S.	C.	C.	M.	C.	S.	C.	C.	S.	M.	M.	S.
4	S.	S.	C.	S.	S.	C.	C.	S.	S.	S.	M.	M.
5	S.	C.	S.	M.	M.	C.	S.	S.	C.	M.	S.	S.
6	C.	C.	S.	G.	M.	C.	C.	C.	C.	S.	C.	S.
7	C.	C.	S.	M.	S.	C.	C.	C.	C.	C.	S.	S.
8	S.	M.	S.	M.	S.	C.	C.	S.	S.	M.	M.	S.
9	S.	S.	S.	M.	S.	C.	S.	S.	S.	S.	S.	C.
10	S.	S.	S.	S.	C.	C.	S.	S.	S.	S.	C.	M.
11	S.	S.	C.	S.	C.	C.	C.	C.	C.	S.	M.	C.
12	C.	S.	S.	C.	C.	C.	S.	S.	M.	S.	G.	S.
13	S.	S.	S.	C.	C.	C.	C.	S.	S.	M.	G.	S.
14	S.	S.	S.	C.	S.	S.	C.	S.	M.	S.	M.	C.
15	C.	S.	S.	C.	S.	C.	S.	C.	S.	C.	C.	S.
16	S.	S.	C.	C.	S.	C.	S.	S.	C.	C.	S.	C.
17	C.	S.	C.	S.	C.	S.	M.	S.	C.	C.	S.	C.
18	S.	C.	C.	M.	C.	S.	S.	C.	C.	C.	M.	C.
19	S.	C.	S.	M.	C.	S.	S.	C.	C.	M.	S.	C.
20	C.	C.	S.	C.	C.	S.	S.	C.	S.	M.	C.	S.
21	C.	S.	C.	S.	S.	C.	S.	C.	S.	S.	C.	S.
22	S.	S.	C.	C.	S.	C.	S.	S.	C.	M.	S.	C.
23	S.	C.	S.	C.	S.	S.	S.	S.	C.	M.	C.	S.
24	S.	C.	S.	C.	C.	S.	S.	C.	S.	S.	C.	C.
25	C.	S.	C.	S.	S.	C.	S.	S.	C.	M.	C.	C.
26	M.	S.	C.	M.	C.	S.	C.	G.	S.	C.	C.	S.
27	M.	C.	C.	S.	C	S.	C.	M.	S.	S.	C.	S.
28	C.	C.	C.	C.	C.	S.	M.	C.	S.	C.	C.	C.
29	S.		S.	C.	C.	M.	S.	C.	C.	M.	C.	C.
30	S.		M.	S.	S.	M.	C.	S.	C.	C.	C.	M.
31	S.		M.		S.		S.	S.		V.G.		M.
Total C. ...	10	13	13	12	12	11	11	11	10	7	12	15
Total S. ...	19	14	15	10	16	14	17	14	17	13	18	9	11
Total M. ...	2	1	3	7	3	4	2	5	7	3	8	3
Total G. ...	0	0	0	1	0	0	1	1	0	2	1	2
Total V.G. ...	0	0	0	0	0	0	0	0	0	1	0	0

TABLE I*a*.—*Selected quiet days from the Bombay Record, 1902.*

Months.	Quiet days.				
January 1902	2	10	14	23	29
February "	2	9	17	22	27
March "	3	10	14	22	29
April "	2	7	14	23	29
May "	6	11	15	21	28
June "	3	8	14	20	30
July "	2	6	17	27	31
August "	5	12	14	19	28
September "	6	8	14	24	26
October "	7	14	16	19	21
November "	4	8	17	20	29
December "	4	8	18	20	30

TABLE II*a*.—*Selected quiet days from the Bombay Record, 1903.*

Months.	Quiet days.				
January 1903	7	12	15	21	25
February "	2	6	18	24	27
March "	4	11	18	21	27
April "	2	13	16	20	29
May "	3	12	18	20	27
June "	7	10	13	15	27
July "	4	7	15	24	30
August "	3	7	16	19	29
September "	3	7	16	22	26
October "	3	9	15	20	23
November "	6	7	14	16	25
December "	3	10	16	22	28

Government Observatory, Bombay.

TABLE III.—*Dates of Magnetic Disturbances at Colába, Bombay, 1904.*

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S.	S.	C.	G.	S.	C.	S.	C.	C.	C.	S.	S.
2	S.	S.	S.	S.	C.	C.	S.	C.	C.	S.	M	C.
3	S.	C.	S.	S.	C.	C.	G.	M.	C.	S.	M.	S.
4	S.	C.	M.	S.	C.	C.	C.	S.	S.	C.	M.	S.
5	S.	S.	S.	C.	C.	S.	C.	S.	S.	C.	M.	S.
6	S.	S.	C.	S.	S.	M.	M.	S.	S.	C.	M.	S.
7	C.	S.	C.	S.	C.	S.	M.	C.	S.	M.	C.	C.
8	C.	S.	C.	S.	S.	C.	S.	M.	S.	C.	C.	C.
9	S.	S.	C.	C.	S.	S.	S.	C.	S.	S.	C.	M.
10	S.	C.	C.	S.	S.	S.	S.	C.	S.	C.	C.	C.
11	C.	C.	S.	S.	C.	S.	C.	S.	S.	C.	C.	C.
12	C.	C.	S.	S.	G.	M.	C.	S.	S.	C.	C.	C.
13	C.	S.	C.	S.	M.	S.	C.	S.	S.	C.	C.	C.
14	C.	C.	C.	C.	S.	C.	M.	C.	S.	C.	C.	S.
15	S.	S.	C.	S.	S.	M.	S.	S.	S.	C.	S.	C.
16	M.	S.	C.	S.	C.	S.	M.	S.	S.	M.	C.	M.
17	S.	S.	C.	S.	S.	S.	S.	S.	C.	C.	S.	S.
18	C.	C.	C.	M.	S.	S.	S.	C.	C.	C.	S.	S.
19	C.	C.	C.	M.	S.	C.	C.	C.	C.	C.	C.	S.
20	C.	C.	S.	S.	C.	C.	S.	S.	C.	C.	C.	S.
21	C.	C.	S.	S.	C.	C.	C.	S.	C.	M.	C.	C.
22	S.	C.	C.	C.	C.	C.	S.	S.	C.	S.	S.	C.
23	C.	S.	C.	C.	S.	C.	S.	C.	C.	S.	C.	C.
24	S.	S.	C.	S.	S.	C.	C.	C.	C.	C.	C.	C.
25	S.	S.	S.	S.	C.	S.	C.	M.	S.	M.	S.	C.
26	S.	S.	M.	S.	C.	S.	C.	C.	S.	S.	S.	C.
27	C.	C.	S.	C.	S.	M.	S.	C.	C.	C.	S.	C.
28	G.	C.	S.	C.	M.	S.	C.	C.	S.	S	C.	C.
29	M.	C.	S.	S.	S.	C.	C.	S.	S.	S.	S.	C.
30	S.		S.	S.	S.	C.	C.	S.	S.	C.	C.	C.
31	S.		S.		S.		S.	S.		C.		C.
Total C.	11	14	16	8	11	17	14	13	15	14	13	12
Total S.	17	15	13	19	17	9	14	16	13	14	11	17
Total M.	2	0	2	2	2	4	3	2	2	3	6	2
Total G.	1	0	0	1	1	0	0	0	0	0	0	0
Total V.G	0	0	0	0	0	0	0	0	0	0	0	0

TABLE IV.—*Dates of Magnetic Disturbances at Colába, Bombay, 1905.*

Date.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	S.	S.	S.	G.	S.	C.	S.	C.	S.	S.	C.	C.
2	C.	S.	G.	S.	S.	C.	C.	S.	C.	C.	S.	S.
3	C.	S.	G.	M.	S.	S.	C.	S.	C.	C.	S.	S.
4	S.	M.	S.	S.	S.	S.	C.	C.	S.	C.	S.	M.
5	M.	M.	S.	S.	S.	C.	C.	S.	S.	S.	S.	S.
6	M.	S.	S.	S.	S.	S.	C.	M.	S.	C.	S.	S.
7	S.	C.	S.	S.	S.	S.	C.	S.	S.	S.	S.	C.
8	C.	C.	C.	S.	S.	S.	C.	S.	S.	S.	S.	C.
9	C.	C.	C.	C.	S.	S.	C.	S.	S.	C.	S.	C.
10	S.	C.	C.	C.	C.	C.	C.	C.	S.	C.	C.	C.
11	S.	S.	C.	C.	C.	C.	C.	C.	C.	C.	C.	C.
12	S.	S.	C.	C.	C.	C.	C.	S.	S.	C.	C.	S.
13	C.	C.	S.	C.	S.	S.	C.	S.	S.	C.	S.	S.
14	S.	S.	S.	C.	C.	C.	S.	C.	S.	C.	M.	S.
15	S.	S.	S.	C.	C.	C.	S.	C.	S.	C.	G.	S.
16	C.	S.	S.	C.	C.	C.	C.	C.	S.	C.	G.	C.
17	S.	S.	S.	C.	C.	C.	F.	C.	S.	C.	S.	C.
18	S.	S.	C.	C.	S.	C.	C.	S.	C.	C.	S.	C.
19	S.	C.	S.	C.	S.	C.	C.	S.	C.	C.	S.	S.
20	S.	C.	C.	S.	S.	S.	C.	S.	C.	S.	S.	S.
21	S.	S.	C.	S.	C.	S.	C.	C.	C.	C.	S.	C.
22	M.	C.	S.	C.	S.	C.	S.	S.	C.	S.	S.	C.
23	S.	S.	S.	C.	C.	S.	M.	S.	C.	S.	S.	C.
24	S.	S.	S.	C.	C.	S.	S.	M.	C.	S.	S.	C.
25	S.	S.	C.	S.	C.	S.	C.	S.	C.	S.	C.	C.
26	S.	S.	C.	S.	C.	S.	C.	S.	C.	S.	C.	C.
27	C.	C.	S.	S.	C.	S.	C.	S.	C.	S.	C.	C.
28	S.	C.	S.	S.	S.	S.	S.	C.	C.	S.	C.	S.
29	S.		S.	S.	S.	C.	C.	C.	S.	C.	C.	S.
30	C.		S.	S.	S.	C.	C.	C.	S.	C.	C.	C.
31	S.		S.		S.		S.	C.	S.	C.		C.
Total C.	8	10	12	14	12	15	14	10	12	12	9	18
Total S.	20	15	16	15	19	13	15	20	16	18	15	12
Total M.	3	2	3	0	0	2	2	1	2	1	3	1
Total G.	0	1	1	1	0	0	0	0	0	0	3	0
Total V.G	0	0	0	0	0	0	0	0	0	0	0	0

TABLE IIIa.—*Selected quiet days from the Bombay Record, 1904.*

Months.	Quiet days.									
January	7	12	14	19	27					
February	3	10	14	18	27					
March	6	9	16	22	24					
April	5	9	14	22	27					
May	4	7	16	22	26					
June	3	8	13	22	29					
July	4	9	18	21	26					
August	8	12	14	19	25					
September	3	10	14	20	28					
October	6	11	16	19	24					
November	7	10	15	20	24					
December	2	8	13	22	30					

TABLE IVa.—*Selected quiet days from the Bombay Record, 1905.*

Months.	Quiet days.									
January	2	8	13	27	30					
February	8	9	13	19	22					
March	9	11	13	18	26					
April	8	11	14	18	24					
May	5	11	15	21	26					
June	2	13	18	19	25					
July	4	11	15	21	26					
August	1	10	19	21	26					
September	2	7	16	20	29					
October	3	10	12	23	30					
November	1	8	11	26	30					
December	1	8	17	22	27					

Note.—The magnitude of the Disturbances are determined from Horizontal Force Traces.
C. = calm; S. = small; M. = moderate; G. = great; V. G. = very great.
Days are reckoned from midnight to midnight of the following day.

Tables V, VI and VII give the mean Absolute values of Declination, Horizontal Force and Vertical Force, respectively, for the years 1894 to 1905 as determined by several different processes. Tables VIII to XVII give the hourly means and the diurnal inequality of Declination; Tables XVIII to XXVII those of Horizontal Force, and Tables XXVIII to XXXVII those of Vertical Force, for the years 1901 to 1905.

ANNUAL MEANS.

TABLE V.—*Declination.*

Description of Processes.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
(1) Yearly mean obtained from selected quiet days by constants determined from month to month ...	39 26	37 5	34 50	32 35	29 42	26 30	24 29	21 51	19 28	17 32	15 29	13 54
(2) Yearly mean obtained from all (unrestricted) days by constants determined from month to month.	39 35	37 9	34 55	32 41	29 44	26 32	24 30	21 52	19 29	17 31	15 27	14 3
(3) Yearly mean obtained from selected quiet days determined by a single constant	39 26	37 1	35 3	32 24	29 54	26 55	24 35	22 13	20 1	18 4	16 0	14 57
(4) Yearly mean obtained from all (unrestricted) days determined by a single constant	39 35	37 6	35 9	32 29	29 56	26 58	24 36	22 14	20 1	18 3	15 59	14 59
(5) Yearly mean (Absolute observed reduced to the monthly mean tabulation of Magnetograph) ...	39 34	37 8	34 54	32 40	29 41	26 33	24 31	21 51	19 25	17 35	15 29	13 59

TABLE VI.—*Horizontal Force.*

Description of Processes.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.
(1) Yearly mean obtained from selected quiet days by constants determined from month to month...	·37413	·37425	·37446	·37449	·37435	·37437	·37440	·37435	·37424	·37411	·37395	·37387
(2) Yearly mean obtained from all (unrestricted) days by constants determined from month to month.	·37400	·37418	·37438	·37444	·37431	·37434	·37438	·37434	37422	·37409	·37388	·37377
(3) Yearly mean (Absolute observed reduced to the monthly mean reading of Grubb's)	·37406	·37424	·37441	·37444	·37430	·37434	·37436	·37432	·37422	·37406	·37387	·37378
(4) Yearly mean (Absolute observed reduced to the monthly mean tabulation of Magnetograph) ...	·37408	·37427	·37444	·37449	·37436	·37439	·37442	·37439	·37428	·37412	·37391	·37382

TABLE VII.—*Vertical Force.*

Description of Processes.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.	C.G.S.
(1) Yearly mean obtained from selected quiet days by constants determined from month to month...	·14114	·14207	·14321	·14364	·14448	·14540	·14652	·14751	·14835	·14907	·14978	·15083
(2) Yearly mean obtained from all (unrestricted) days by constants determined from month to month.	·14115	·14208	·14322	·14364	·14448	·14541	·14652	·14752	·14833	·14907	·14977	·15083

TABLE VIII.—Hourly Means of the Declination as determined from the selected quiet days in 1901.

(*The mean for the year* = 0° 21′·8 *East.*)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
WINTER.																											
1901. Months.	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
January ...	23·2	22·9	22·8	22·7	22·6	22·5	22·4	22·4	22·1	22·6	23·4	23·7	23·4	23·2	23·0	22·7	22·6	22·8	22·9	22·9	22·9	23·0	22·9	23·0	22·9	22·9	23·1
February ...	22·3	22·6	22·6	22·5	22·4	22·3	22·2	22·0	21·9	22·5	23·0	23·0	22·5	22·3	22·5	22·6	22·6	22·6	22·6	22·6	22·5	22·5	22·5	22·4	22·5	22·5	22·6
March ...	21·8	22·7	22·7	22·7	22·6	22·5	22·5	22·5	23·0	23·6	23·7	23·6	22·8	22·3	22·3	22·9	23·4	23·4	22·8	22·5	22·5	22·5	22·5	22·5	22·7	22·7	22·3
October ...	20·6	21·4	21·4	21·3	21·2	21·2	21·1	21·2	21·8	22·1	21·7	21·2	20·3	20·0	20·3	20·8	21·3	21·2	21·0	21·3	21·3	21·3	21·2	21·3	21·3	21·3	20·0
November ...	20·3	20·9	20·8	20·8	20·7	20·6	20·6	20·6	20·9	21·2	21·1	20·5	20·0	20·3	20·9	21·2	21·1	21·1	20·9	20·9	20·9	20·8	20·8	20·9	20·9	20·9	20·4
December ...	21·3	21·4	21·3	21·2	21·0	20·8	20·7	20·7	20·5	20·9	21·4	21·4	21·1	21·2	21·4	21·3	21·2	21·2	21·4	21·3	21·3	21·4	21·4	21·4	21·3	21·3	21·0
Means ...	21·6	22·0	21·9	21·8	21·7	21·6	21·6	21·5	21·7	22·2	22·4	22·2	21·7	21·6	21·7	21·9	22·0	22·1	21·9	21·9	21·9	21·9	21·9	21·9	21·9	21·9	21·6
SUMMER.																											
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
April ...	19·9	22·0	22·1	22·1	22·1	22·0	21·9	22·3	23·1	23·3	22·8	21·7	20·6	20·0	20·0	20·5	21·3	22·0	22·0	22·0	21·9	21·8	21·9	22·0	22·0	22·1	20·8
May ...	20·3	22·3	22·3	22·2	22·2	22·1	22·3	23·2	24·1	24·3	23·2	22·0	20·7	20·5	20·6	21·1	21·6	22·1	22·2	22·0	21·9	21·9	21·9	22·1	22·1	22·1	20·4
June ...	19·5	22·0	22·0	22·0	22·0	22·0	22·4	23·3	23·8	23·6	22·4	20·1	20·0	19·0	19·1	19·8	21·0	21·8	21·9	21·7	21·4	21·5	21·6	21·7	21·8	21·9	19·5
July ...	19·7	21·7	21·7	21·8	21·8	21·8	22·1	23·0	23·4	23·2	22·0	20·8	19·6	19·3	19·7	20·4	21·0	21·7	21·9	21·7	21·4	21·4	21·3	21·5	21·6	21·7	19·6
August ...	19·5	21·9	21·9	21·9	22·0	22·1	22·3	23·2	23·7	23·4	22·5	21·3	20·1	19·7	20·1	20·9	21·6	22·1	22·2	21·8	21·5	21·5	21·6	21·7	21·8	21·9	19·2
September ...	19·3	22·1	22·2	22·2	22·2	22·2	22·4	23·1	24·1	23·9	22·7	21·2	20·0	19·3	19·6	20·8	22·1	22·9	22·6	22·1	21·9	21·9	21·9	22·0	22·1	22·1	19·3
Means ...	19·7	22·0	22·0	22·0	22·0	22·0	22·2	23·0	23·7	23·6	22·6	21·2	20·2	19·6	19·9	20·6	21·4	22·1	22·1	21·9	21·7	21·7	21·7	21·8	21·9	22·0	19·8

TABLE IX.—Diurnal Inequality of the Declination as deduced from Table VIII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	′	′	′	′	″	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·2	+0·2	+0·2	+0·2	+0·2	+0·4	+1·2	+1·9	+1·8	+0·8	−0·6	−1·6	−2·1	−1·9	−1·2	−0·3	+0·3	+0·3	+0·1	−0·1	−0·1	−0·1	0·0	+0·1	+0·2
WINTER MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	0·0	0·0	−0·1	−0·2	−0·3	−0·3	−0·2	+0·3	+0·5	+0·4	−0·2	−0·3	−0·1	0·0	+0·2	+0·2	0·0	0·0	0·0	0·0	0·0	0·0	0·0	+0·1	0·0
ANNUAL MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	+0·1	+0·1	0·0	0·0	+0·1	+0·4	+0·8	+1·0	+0·7	−0·1	−0·9	−1·2	−1·0	−0·6	−0·1	+0·2	+0·2	+0·1	0·0	−0·1	0·0	0·0	+0·1	+0·1

Note.—When the sign is + the magnet points to the East of its mean position.

TABLE X.—Hourly Means of the Declination, as determined from the selected quiet days in 1902.

(*The Mean for the year* = 0° 19′·5 *East.*)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
WINTER.																											
1902. Months.	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
January ...	20·3	20·6	20·6	20·5	20·5	20·3	20·2	20·0	19·9	20·9	21·9	22·2	21·1	20·6	20·3	19·7	19·8	20·6	20·9	20·8	20·8	20·8	20·7	20·7	20·7	"20·7	20·6
February ...	19·9	20·3	20·2	20·2	20·1	20·0	20·1	20·6	21·2	21·2	20·6	20·2	20·2	20·3	20·3	20·3	20·5	20·5	20·3	20·3	20·3	20·2	20·2	20·2	20·2	20·2	19·8
March ...	19·9	20·5	20·5	20·5	20·5	20·4	20·4	20·5	21·2	21·7	22·1	21·7	20·4	19·6	19·7	20·3	20·8	20·8	20·6	20·5	20·4	20·4	20·4	20·4	20·5	20·4	19·9
October ...	17·8	19·0	19·0	19·0	19·0	18·9	18·9	19·0	19·7	19·8	19·4	18·4	17·7	17·4	17·8	18·4	18·9	19·2	19·1	18·9	18·9	18·9	19·0	19·0	19·0	19·0	17·3
November ...	18·0	18·8	18·8	18·7	18·6	18·5	18·5	18·2	18·2	18·4	18·4	17·8	17·3	17·9	18·5	18·8	18·8	18·8	18·8	18·8	18·7	18·7	18·7	18·6	18·7	18·7	18·0
December ...	17·7	18·2	18·1	18·0	18·0	17·8	17·7	17·6	17·3	17·4	17·5	17·6	17·6	17·8	18·3	18·7	18·6	18·5	18·4	18·4	18·3	18·2	18·2	18·1	18·2	18·2	17·9
Means ...	18·9	19·6	19·5	19·5	19·4	19·3	19·3	19·2	19·4	19·8	20·1	19·8	19·1	18·9	19·1	19·3	19·6	19·7	19·7	19·6	19·6	19·5	19·5	19·5	19·5	19·5	18·9
SUMMER.																											
April	18·9	20·4	20·4	20·4	20·4	20·3	20·4	21·0	21·9	22·2	21·9	21·0	19·7	19·1	19·0	19·3	20·0	20·4	20·4	20·3	20·1	20·1	20·2	20·3	20·4	20·4	19·2
May	18·4	20·2	20·2	20·2	20·3	20·3	20·4	21·1	21·8	21·9	21·2	20·3	19·0	18·6	18·8	19·3	20·0	20·2	20·2	20·0	19·9	19·8	19·9	20·0	20·1	20·2	18·3
June	17·9	19·9	19·9	19·9	19·9	19·9	20·1	21·0	21·2	21·0	19·8	18·8	18·2	17·7	17·9	18·4	19·0	19·5	19·6	19·3	19·2	19·2	19·4	19·5	19·6	19·7	17·9
July	16·6	19·1	19·2	19·2	19·2	19·2	19·5	20·5	21·2	21·1	20·1	18·7	17·6	16·8	16·7	16·9	17·8	18·3	18·7	18·9	18·6	18·6	18·8	18·9	19·0	19·0	16·8
August ...	16·6	19·0	19·1	19·1	19·1	19·2	19·5	20·2	21·1	21·1	19·8	18·1	16·9	16·8	17·1	17·8	18·8	19·3	19·4	19·0	18·8	18·8	18·3	18·8	18·9	18·9	17·0
September ...	16·7	19·0	19·0	19·0	19·0	19·0	19·2	20·1	21·2	21·2	19·9	18·4	16·8	16·0	16·3	17·4	18·6	19·2	19·2	19·0	18·8	18·7	18·7	18·8	18·8	18·8	16·7
Means ...	17·5	19·6	19·6	19·6	19·6	19·7	19·9	20·7	21·4	21·4	20·5	19·2	18·0	17·5	17·6	18·2	19·0	19·5	19·6	19·4	19·2	19·2	19·3	19·4	19·5	19·5	17·7

TABLE XI.—Diurnal Inequality of the Declination as deduced from Table X.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	′ +0·2	′ +0·2	′ +0·2	′ +0·2	′ +0·2	′ +0·4	′ +1·2	′ +2·0	′ +2·0	′ +1·0	′ −0·2	′ −1·4	′ −1·9	′ −1·8	′ −1·2	′ −0·4	′ 0·0	′ +0·1	′ 0·0	′ −0·2	′ −0·2	′ −0·1	′ 0·0	′ 0·0	′ +0·1
WINTER MEANS.																									
	′ +0·1	′ +0·1	′ 0·0	′ 0·0	′ −0·2	′ −0·2	′ −0·2	′ −0·1	′ +0·3	′ +0·6	′ +0·3	′ −0·3	′ −0·5	′ −0·3	′ −0·1	′ +0·1	′ +0·2	′ +0·2	′ +0·1	′ +0·1	′ 0·0	′ 0·0	′ 0·0	′ +0·1	′ 0·0
ANNUAL MEANS.																									
	′ +0·1	′ +0·1	′ +0·1	′ +0·1	′ 0·0	′ +0·1	′ +0·5	′ +0·9	′ +1·1	′ +0·8	′ +0·1	′ −0·9	′ −1·2	′ −1·1	′ −0·7	′ −0·2	′ +0·1	′ +0·2	′ 0·0	′ −0·1	′ −0·1	′ −0·1	′ 0·0	′ 0·0	′ 0·0

Note.—When the sign is + the magnet points to the East of its mean position.

TABLE XII.—Hourly Means of the Declination as determined from the selected quiet days in 1903.

(*The Mean for the year* = 0°17′·5 *East.*)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon
WINTER.																											
1903. Months.	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
January ...	17·4	18·1	18·0	17·8	17·7	17·6	17·5	17·4	17·5	18·3	19·0	18·7	17·8	17·4	17·8	17·8	17·7	18·0	18·0	18·1	18·1	18·1	18·1	18·0	18·0	17·9	17·5
February ...	18·4	18·5	18·5	18·4	18·2	18·0	17·8	17·7	17·9	18·5	19·0	19·2	18·9	18·5	18·2	18·2	18·4	18·5	18·5	18·3	18·4	18·4	18·3	18·3	18·3	18·3	18·2
March ...	17·8	18·1	18·2	18·1	18·1	18·0	18·0	18·0	18·4	19·2	19·6	19·5	18·9	18·0	17·8	18·0	18·3	18·5	18·3	18·1	18·0	17·9	17·9	17·9	18·0	18·0	17·8
October ...	16·1	17·5	17·5	17·3	17·2	17·2	17·4	17·6	18·3	18·5	17·9	17·3	16·3	16·1	16·7	17·4	17·9	17·9	17·4	17·3	17·3	17·4	17·4	17·4	17·4	17·5	15·8
November ...	16·7	17·1	17·1	17·0	16·8	16·7	16·6	16·4	16·9	17·5	17·8	17·5	16·6	16·8	17·1	17·2	17·5	17·3	17·0	17·0	17·1	17·1	17·0	17·0	17·1	17·0	16·5
December ...	16·7	16·6	16·7	16·6	16·5	16·4	16·3	16·3	16·1	16·2	16·7	17·0	17·1	16·8	16·7	16·7	16·7	16·7	16·6	16·6	16·6	16·6	16·4	16·5	16·5	16·5	16·7
Means ...	17·2	17·7	17·6	17·5	17·4	17·3	17·3	17·2	17·5	18·1	18·3	18·2	17·6	17·3	17·4	17·5	17·7	17·8	17·6	17·6	17·6	17·6	17·5	17·5	17·6	17·5	17·1
SUMMER.																											
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
April ...	17·4	18·7	18·7	18·8	18·7	18·6	18·5	18·8	19·6	20·0	19·7	18·7	17·6	17·0	17·0	17·4	18·0	18·6	18·8	18·4	18·3	18·2	18·3	18·5	18·6	18·6	17·1
May ...	15·6	17·6	17·6	17·6	17·6	17·6	18·0	19·2	19·7	19·5	18·5	17·3	16·0	15·6	15·7	16·3	17·3	17·9	17·9	17·5	17·2	17·2	17·2	17·4	17·4	17·5	15·3
June ...	14·6	17·0	17·0	17·1	17·1	17·1	17·6	18·9	19·4	19·2	18·0	16·7	15·0	14·1	14·1	14·5	15·5	16·4	16·8	16·6	16·3	16·3	16·5	16·7	16·9	16·9	14·0
July ...	15·0	17·1	17·2	17·3	17·3	17·4	17·7	18·9	19·1	18·5	17·5	16·6	15·3	14·8	15·2	15·5	16·3	17·0	17·3	17·2	16·8	16·8	16·9	17·0	17·0	17·1	13·8
August ...	14·7	17·6	17·8	17·8	17·9	17·9	18·3	19·5	20·1	19·8	18·7	17·4	16·4	16·0	16·1	16·5	17·3	18·0	18·1	17·7	17·3	17·2	17·2	17·2	17·3	17·4	15·5
September ...	14·5	17·4	17·5	17·5	17·4	17·5	17·8	18·9	19·6	19·1	17·9	16·5	15·2	14·6	15·2	16·4	17·7	18·1	17·9	17·5	17·3	17·3	17·3	17·3	17·3	17·3	14·8
Means ...	15·3	17·6	17·6	17·7	17·7	17·7	18·0	19·0	19·6	19·3	18·4	17·2	15·9	15·3	15·5	16·1	17·0	17·7	17·8	17·5	17·2	17·2	17·2	17·4	17·4	17·5	15·1

TABLE XIII.—Diurnal Inequality of the Declination as deduced from Table XII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	+0·2	+0·2	+0·2	+0·2	+0·5	+1·5	+2·1	+1·9	+0·9	−0·2	−1·5	−2·1	−1·9	−1·3	−0·4	+0·2	+0·3	0·0	−0·2	−0·3	−0·2	−0·1	0·0	0·0
WINTER MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	0·0	0·0	−0·2	−0·3	−0·3	−0·4	−0·1	+0·5	+0·7	+0·6	0·0	−0·3	−0·2	−0·1	+0·1	+0·2	0·0	0·0	0·0	0·0	−0·1	−0·1	0·0	0·0
ANNUAL MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	+0·1	+0·1	0·0	0·0	+0·1	+0·6	+1·0	+1·2	+0·8	+0·2	−0·8	−1·2	−1·1	−0·7	−0·1	+0·2	+0·2	0·0	−0·1	−0·2	−0·1	−0·1	0·0	0·0

Note.—When the sign is + the magnet points to the East of its mean position.

TABLE XIV.—Hourly Means of the Declination as determined from the selected quiet days in 1904.

(*The Mean for the year* = 0°15′·5 *East.*)

Hours.	Preced. ing noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeed. ing noon.
WINTER.																											
1904. Months.	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
January ...	15·9	16·8	16·8	16·8	16·7	16·6	16·5	16·5	16·5	17·4	17·5	16·4	15·6	16·1	16·5	16·7	17·2	17·5	17·0	16·7	16·7	16·7	16·7	16·7	16·6	15·9	
February ...	15·7	16·4	16·3	16·3	16·2	16·1	16·1	16·2	16·5	17·2	17·7	17·7	17·0	16·4	16·4	16·3	16·3	16·4	16·3	16·3	16·4	16·3	16·3	16·3	16·3	15·5	
March ...	16·2	16·3	16·3	16·2	16·1	16·1	16·0	16·2	17·2	18·2	18·5	18·4	17·6	16·7	16·4	16·5	16·9	16·9	16·6	16·2	16·1	16·1	16·1	16·1	16·2	15·6	
October ...	13·2	14·8	14·8	14·8	14·7	14·7	14·7	15·0	15·5	15·5	15·5	15·1	14·4	13·4	13·0	13·6	14·4	15·0	15·0	14·6	14·4	14·4	14·6	14·6	14·7	14·8	14·9	13·5
November ...	14·0	14·4	14·5	14·4	14·4	14·2	14·1	14·0	14·2	14·3	14·2	14·2	13·7	13·9	14·5	14·8	14·8	14·4	14·2	14·3	14·4	14·3	14·3	14·2	14·4	14·4	14·1
December ...	14·4	15·1	15·0	14·9	14·6	14·5	14·3	14·2	14·0	14·0	14·2	14·3	13·8	14·0	14·8	15·3	15·1	15·0	14·8	14·8	14·8	14·7	14·6	14·7	14·7	14·7	14·4
Means ...	14·5	15·6	15·6	15·6	15·4	15·4	15·3	15·4	15·7	16·1	16·2	15·9	15·2	15·0	15·4	15·7	15·9	15·9	15·6	15·4	15·5	15·4	15·4	15·4	15·5	15·5	14·8
SUMMER.																											
April ...	14·3	16·1	16·2	16·2	16·1	16·1	16·2	16·9	17·9	18·3	17·7	16·5	15·2	14·5	14·5	14·8	15·6	16·4	16·6	16·2	15·7	15·7	15·8	15·8	16·0	16·1	14·1
May ...	14·0	15·6	15·7	15·8	15·7	15·7	15·9	17·0	17·3	17·8	16·4	14·8	13·8	13·5	13·9	14·6	15·1	15·5	15·7	15·6	15·2	15·2	15·2	15·4	15·4	15·5	13·6
June ...	14·0	15·6	15·6	15·6	15·6	15·6	15·9	16·8	17·5	17·4	16·6	15·2	13·9	13·4	13·5	14·2	14·9	15·5	15·7	15·5	15·2	15·1	15·2	15·4	15·4	15·5	13·3
July ...	13·5	15·7	15·7	15·7	15·7	15·8	16·3	17·5	18·2	18·0	17·0	15·9	14·8	14·0	13·5	13·8	14·6	15·4	16·0	15·8	15·4	15·3	15·3	15·4	15·5	15·6	13·5
August ...	13·1	15·-	15·3	15·3	15·4	15·5	15·7	16·9	18·0	17·9	15·9	14·0	13·1	12·4	12·5	13·4	14·5	15·3	15·5	15·2	14·8	14·8	14·8	14·9	15·0	15·1	12·2
September ...	12·2	14·8	14·9	14·9	14·9	15·0	15·3	16·2	17·2	17·0	15·5	14·0	12·5	12·1	12·5	13·5	14·5	14·9	14·8	14·5	14·4	14·4	14·5	14·6	14·7	14·8	12·1
Means ...	13·5	15·5	15·5	15·6	15·6	15·6	15·9	16·9	17·8	17·7	16·5	15·1	13·9	13·3	13·4	14·1	14·9	15·5	15·7	15·5	15·1	15·1	15	15·2	15·3	15·4	13·1

TABLE XV.—Diurnal Inequality of the Declination as deduced from Table XIV.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	′ +0·1	′ +0·2	′ +0·2	′ +0·2	′ +0·2	′ +0·5	′ +1·5	′ +2·3	′ +2·3	′ +1·1	′ −0·3	′ −1·5	′ −2·1	′ −2·0	′ −1·3	′ −0·5	′ +0·1	′ +0·3	′ +0·1	′ −0·3	′ −0·3	′ −0·3	′ −0·2	′ −0·1	′ 0·0
WINTER MEANS.																									
	′ +0·1	′ 0·0	′ 0·0	′ −0·1	′ −0·2	′ −0·3	′ −0·2	′ +0·1	′ +0·5	′ +0·6	′ +0·3	′ −0·3	′ −0·5	′ −0·2	′ +0·1	′ +0·3	′ +0·3	′ 0·0	′ −0·1	′ −0·1	′ −0·1	′ −0·1	′ −0·1	′ −0·1	′ 0·0
ANNUAL MEANS.																									
	′ +0·1	′ +0·1	′ +0·1	′ 0·0	′ 0·0	′ +0·1	′ +0·6	′ +1·2	′ +1·4	′ +0·9	′ 0·0	′ −0·9	′ −1·3	′ −1·1	′ −0·6	′ −0·1	′ +0·2	′ +0·2	′ 0·0	′ −0·2	′ −0·2	′ −0·2	′ −0·1	′ −0·1	′ 0·0

Note.—When the sign is + the magnet points to the East of its mean position.

TABLE XVI.—Hourly Means of the Declination as determined from the selected quiet days in 1905.

(The Mean for the year=0°13′·9 *East.)*

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
WINTER.																											
1905. Months.	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
January ...	14·5	14·4	14·3	14·1	13·9	13·7	13·7	13·7	13·5	14·2	14·9	15·2	14·4	13·7	13·5	13·7	13·8	14·1	14·2	14·1	14·3	14·3	14·2	14·2	14·2	14·2	14·4
February ...	14·1	14·0	13·9	13·8	13·8	13·5	13·4	13·3	13·5	14·6	15·4	15·5	14·5	13·9	13·9	14·0	14·0	13·8	13·6	13·6	14·0	14·1	14·1	14·1	14·0	14·0	14·4
March ...	13·3	14·1	14·2	14·0	13·9	13·8	13·8	14·0	14·9	15·7	15·7	15·0	13·8	13·1	13·1	13·8	14·4	14·5	14·0	13·7	13·7	13·8	13·7	13·7	13·9	14·0	12·9
October ...	11·3	14·1	14·1	14·1	14·1	14·0	14·1	14·3	15·5	15 8	15·0	13·6	12·0	11·6	12·0	13·0	14·0	14·4	13·8	13·6	13·7	13·7	13·7	13·7	13·9	13·9	11·4
November ...	12·6	13·6	13·6	13·5	13·3	13·1	13·0	12·8	13·2	13·9	14·1	13·8	12·9	12·6	13·0	13·5	13·6	13·5	13·0	13·2	13·4	13·4	13·4	13·4	13·6	13·6	12·6
December ...	13·2	13·5	13·5	13·4	13·4	13·2	13·3	13·2	12·8	13·3	13·6	13·5	13·3	13·3	13 3	13·3	13 0	13·2	13·0	13·2	13·4	13·4	13·4	13·4	13·5	13·5	13·2
Means ...	13·2	14·0	13·9	13·8	13·7	13·6	13·6	13·5	13·9	14·6	14·8	14·4	13·5	13·1	13·1	13·5	13·8	13·9	13·6	13·6	13·8	13·8	13·7	13·7	13·8	13·8	13·2
SUMMER.																											
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
April... ...	13·0	14·4	14·4	14·3	14·3	14·2	14·2	14·9	16·0	16·5	16·1	15·4	14·1	13·0	12·8	12·9	13·4	14·1	14·5	14·5	14·1	14·0	14·2	14·2	14·3	14·4	13·1
May	12·6	14·2	14·3	14·2	14·0	14·0	14·4	15·6	16·3	16·6	15·7	14 4	13·3	12·4	12·1	12·6	13·4	14·0	14·5	14·4	13·9	13·7	13·8	13 8	13·9	14·0	11·4
June	11·9	14·5	14·7	14·6	14·6	14·7	15·0	16·1	16·8	16·6	15·3	14·0	12·9	12·1	12·1	12·8	13·8	14·4	14·8	14·7	14·3	14·0	14·3	14·2	14·4	14·4	11·4
July	11·2	14·0	14·1	14·0	14·0	14·0	14·4	15·6	16·2	15·8	14·4	12·7	11·3	11·2	11·0	11·2	12·1	13·2	14·0	14·1	13·5	13·5	13·6	13 7	13·8	13·9	12·1
August ...	11·0	14·0	14·1	14·1	14·1	14·3	14·9	16·4	17·2	16·9	14·9	13·1	11·5	10·9	11·2	12·3	13·5	14·4	14·7	14·3	13·9	13·8	13·8	13·9	13·9	14·0	10·7
September ...	10·4	13·9	14·0	14·2	14·2	14·2	14·5	15·8	16·5	15·7	13·9	12·6	11·1	10·4	11·0	12·3	13 6	14·4	14·3	13·8	13·8	13·9	13·9	13·9	13·9	14·0	10·4
Means ...	11·7	14·2	14·2	14·2	14·2	14·2	14·6	15·7	16·5	16·3	15·1	13·7	12·4	11·7	11·7	12·3	13·3	14·1	14·4	14·3	13·9	13·8	13·7	14·0	14·0	14·1	11·5

TABLE XVII.—Diurnal Inequality of the Declination as deduced from Table XVI.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·1	+0·2	+0·2	+0·2	+0·2	+0·5	+1·7	+2·5	+2·3	+1·0	−0·3	−1·7	−2·4	−2·3	−1·7	−0·7	0 0	+0 4	+0·2	−0·1	−0·2	−0·3	−0·1	0·0	+0·1
WINTER MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·2	+0·1	0·0	0·0	−0·2	−0·2	−0·2	+0·1	+0·8	+1·0	+0·6	−0·3	−0·7	−0·6	−0·2	0·0	+0·1	−0·2	−0·2	0 0	0·0	0·0	0·0	0·0	0·0	+0·1
ANNUAL MEANS.																									
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
	+0·2	+0·2	+0·1	+0·1	0·0	+0 2	+0·7	+1·3	+1·6	+1·0	+0·2	−1·0	−1·5	−1·5	−0·9	−0·3	+0·1	+C 1	0·0	−0·1	−0·1	−0·1	0·0	0·0	0·0	+0·1

Note.—When the sign is + the magnet points to the East of its mean position.

TABLE XVIII.—Hourly Means of the Horizontal Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1901.

(*The Mean for the year* = 0·37435.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	0·37000+													WINTER.													
1901. Months.																											
January...	442	425	426	427	427	428	430	430	434	437	440	441	448	446	443	441	437	430	430	427	427	427	426	424	425	425	453
February.	457	431	430	430	431	433	434	436	439	446	455	461	463	458	451	447	443	439	436	434	433	433	433	434	434	434	468
March ...	469	426	427	427	428	429	429	430	435	444	457	466	467	460	452	444	439	436	433	429	428	428	427	426	427	427	454
October...	449	426	426	427	427	427	428	428	430	437	446	454	457	453	444	436	431	429	428	426	426	425	425	426	427	428	464
November	439	419	418	419	419	419	420	421	427	435	441	445	445	440	432	426	422	420	419	418	418	417	417	418	419	419	442
December	449	427	428	429	431	431	431	433	439	444	448	451	449	447	443	438	435	435	435	432	432	432	431	430	431	432	452
Means ...	451	426	426	426	427	428	429	430	434	440	448	453	455	451	444	439	434	431	430	428	427	427	426	426	427	427	455
														SUMMER.													
April ...	466	426	425	424	425	426	426	428	433	446	463	473	475	468	459	449	440	433	430	428	425	425	425	426	428	428	464
May ...	462	427	428	428	429	428	428	428	429	437	449	459	463	462	454	446	439	432	430	428	427	427	427	428	428	429	461
June ...	450	427	427	427	428	428	427	430	439	449	460	467	466	461	453	444	435	430	428	427	428	428	430	431	432	433	454
July ...	464	435	434	434	434	434	434	436	441	449	457	462	465	465	461	453	445	438	436	434	434	434	434	436	437	437	470
August ...	452	429	429	428	427	427	428	429	433	438	443	448	449	448	444	440	435	430	427	425	426	426	426	427	428	429	460
September	453	427	426	426	427	428	428	427	427	433	444	452	454	453	446	440	435	430	429	428	428	427	427	426	427	428	458
Means ...	458	428	428	428	428	428	428	430	434	442	453	460	462	459	453	445	438	432	430	428	428	428	428	429	430	431	461

TABLE XIX.—Diurnal Inequality of the Horizontal Force as deduced from Table XVIII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	−·00009	−·00009	−·00009	−·00005	−·00009	−·00009	−·00007	−·00003	+·00005	+·00016	+·00023	+·00025	+·00022	+·00016	+·00008	+·00001	−·00005	−·00007	−·00009	−·00009	−·00009	−·00009	−·00008	−·00007	−·00006
													WINTER MEANS.												
	−·00008	−·00008	−·00008	−·00007	−·00006	−·00005	−·00004	·00000	+·00006	+·00014	+·00019	+·00021	+·00017	+·00010	+·00005	·00000	−·00003	−·00004	−·00006	−·00007	−·00007	−·00008	−·00008	−·00007	−·00007
													ANNUAL MEANS.												
	−·00008	−·00008	−·00008	−·00007	−·00007	−·00006	−·00005	−·00001	+·00006	+·00015	+·00022	+·00023	+·00020	+·00013	+·00007	+·00001	−·00003	−·00005	−·00007	−·00007	−·00008	−·00008	−·00007	−·00006	−·00006

Note.—When the sign is + the reading is above the mean.

TABLE XX.—Hourly Means of the Horizontal Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1902.

(*The Mean for the year* = 0·37424.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	0·37000 +													WINTER.													
1902 Months.																											
January ...	433	417	417	416	416	417	417	419	423	426	429	435	438	434	427	423	420	421	422	421	419	419	419	418	418	419	438
February...	443	413	414	415	415	415	416	416	420	426	434	440	447	447	440	433	427	423	422	419	418	418	417	417	417	418	444
March ...	459	425	424	424	425	425	426	427	433	442	453	461	463	459	450	441	434	430	430	429	428	428	427	427	428	428	465
October ...	436	406	406	406	405	405	406	407	409	419	430	440	443	439	428	422	417	412	409	405	404	413	413	413	404	407	438
November.	426	404	404	405	405	405	407	409	416	423	429	436	435	431	425	420	416	411	408	407	407	407	407	408	408	409	436
December .	445	420	421	423	421	421	422	424	430	436	443	448	449	444	437	430	426	423	422	421	420	420	421	421	421	422	449
Means ...	440	414	414	415	414	415	416	417	422	429	436	443	446	442	434	428	423	420	419	417	416	417	417	417	416	417	445
														SUMMER.													
April ...	432	414	413	415	414	415	415	414	416	424	441	450	453	448	441	434	429	425	421	417	416	416	416	417	416	416	457
May ...	438	416	417	417	417	417	417	419	424	433	443	450	456	454	449	441	431	425	421	419	417	417	417	417	418	418	459
June ...	440	414	413	413	413	414	414	416	423	433	443	450	452	450	444	433	422	416	412	412	414	413	413	414	415	416	438
July ...	442	419	418	418	418	418	419	421	424	430	438	448	451	448	442	434	428	422	420	419	420	420	421	421	421	421	461
August ...	446	415	415	414	415	415	415	416	418	423	431	441	445	446	444	437	430	422	419	417	416	416	415	415	416	417	444
September .	440	412	412	413	413	415	416	414	410	414	429	442	448	448	443	435	426	421	418	416	414	413	413	413	413	413	440
Means ...	440	415	415	415	415	416	416	417	419	426	437	447	451	449	444	436	428	422	418	417	416	416	416	416	416	417	450

TABLE XXI.—Diurnal Inequality of the Horizontal Force as deduced from Table XX.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	−·00009	−·00009	−·00009	−·00009	−·00008	−·00008	−·00007	−·00005	+·00002	+·00013	+·00023	+·00027	+·00025	+·00020	+·00012	+·00004	−·00002	−·00006	−·00007	−·00008	−·00008	−·00008	−·00008	−·00008	−·00007
													WINTER MEANS.												
	−·00009	−·00009	−·00008	−·00009	−·00008	−·00007	−·00006	−·00001	+·00006	+·00013	+·00020	+·00023	+·00019	+·00011	+·00005	·00000	−·00003	−·00004	−·00006	−·00007	−·00006	−·00006	−·00006	−·00007	−·00006
													ANNUAL MEANS.												
	−·00009	−·00010	−·00009	−·00009	−·00009	−·00008	−·00007	−·00004	+·00003	+·00013	+·00021	+·00024	+·00022	+·00015	+·00008	+·00001	−·00003	−·00005	−·00007	−·00008	−·00007	−·00007	−·00007	−·00008	−·00007

Note.—When the sign is + the reading is above the mean.

TABLE XXII.—Hourly means of the Horizontal Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1903.

(*The mean for the year* = 0·37 411.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon
0·37000 +													WINTER.														
1903. Months.																											
January ...	439	399	409	410	410	412	413	415	416	415	420	427	428	425	422	417	414	410	411	410	411	409	409	410	409	410	442
February ...	442	413	412	413	413	414	415	417	423	431	442	447	450	440	440	430	424	417	415	415	415	413	413	413	414	416	445
March ...	457	420	421	420	421	421	422	423	428	439	450	458	463	458	448	440	433	427	426	425	423	421	420	420	422	422	463
October ...	415	389	390	390	391	392	389	389	394	404	415	423	431	428	421	411	402	396	394	393	389	388	389	391	391	390	431
November ...	407	381	380	380	382	385	386	389	395	403	416	425	428	419	411	400	392	387	386	386	385	384	381	383	384	385	421
December ...	401	384	381	384	384	383	385	385	391	398	403	408	411	409	405	399	395	391	386	387	387	386	386	387	387	388	416
Means ...	427	398	399	399	400	401	402	403	408	415	424	431	435	431	424	416	410	405	403	403	402	400	400	401	401	402	436
													SUMMER.														
April ...	428	397	396	396	397	398	398	399	405	418	433	443	443	435	428	419	411	405	401	399	398	397	396	397	398	398	447
May ...	438	401	400	400	400	398	398	399	408	421	435	441	441	438	430	421	412	407	403	402	400	400	400	401	403	403	435
June ...	430	398	399	399	399	399	398	400	407	415	425	434	437	433	428	418	408	402	398	398	400	400	401	400	402	402	441
July ...	450	415	414	413	414	415	413	417	420	427	437	447	450	451	447	439	435	420	415	413	412	413	414	415	416	416	460
August ...	445	407	408	408	409	410	411	412	415	421	430	436	440	438	435	430	423	418	416	414	412	412	412	414	415	415	450
September ...	418	398	399	399	400	400	400	396	389	394	407	418	423	421	420	416	410	407	406	404	399	399	399	400	402	402	426
Means ...	435	403	403	402	403	403	403	404	407	416	428	436	439	436	431	424	416	410	406	405	403	403	404	404	406	406	443

TABLE XXIII.—Diurnal Inequality of the Horizontal Force as deduced from Table XXII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	−·00009	−·00009	−·00010	−·00009	−·00009	−·00009	−·00008	−·00005	+·00004	+·00016	+·00024	+·00027	+·00024	+·00019	+·00012	+·00004	−·00002	−·00006	−·00007	−·00009	−·00009	−·00008	−·00008	−·00006	−·00006
													WINTER MEANS.												
	−·00011	−·00010	−·00010	−·00009	−·00008	−·00007	−·00006	−·00001	+·00006	+·00015	+·00022	+·00026	+·00022	+·00015	+·00007	+·00001	−·00004	−·00006	−·00006	−·00007	−·00009	−·00009	−·00008	−·00008	−·00007
													ANNUAL MEANS.												
	−·00011	−·00010	−·00010	−·00009	−·00009	−·00009	−·00008	−·00003	+·00004	+·00015	+·00023	+·00026	+·00022	+·00017	+·00009	+·00002	−·00004	−·00006	−·00007	−·00008	−·00009	−·00009	−·00008	−·00007	−·00007

Note.—When the sign is + the reading is above the mean.

TABLE XXIV.—Hourly means of the Horizontal Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1904.

(*The mean for the year* =0·37395.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
0·37000 +	WINTER.																										
1904. Months.																											
January ...	416	406	404	404	404	407	408	409	412	415	422	431	437	435	429	421	415	410	410	412	410	411	410	411	412	412	437
February ...	417	390	392	392	394	394	394	394	395	399	407	414	419	418	413	407	400	399	398	397	397	396	394	395	397	397	425
March ...	434	387	388	387	388	388	389	391	399	412	429	441	448	444	430	416	406	400	396	394	392	392	390	388	388	389	453
October ...	403	371	372	373	373	374	375	375	379	388	401	409	416	413	404	394	385	379	374	373	372	368	369	369	371	373	415
November ...	404	374	375	375	375	375	376	378	386	397	411	419	419	411	399	389	381	377	377	378	376	374	374	376	377	378	414
December ...	416	385	385	384	387	388	389	393	399	409	417	423	422	415	406	398	394	389	387	392	392	391	390	392	393	394	414
Means ...	415	385	386	386	387	388	388	390	395	403	414	423	427	423	413	404	397	392	390	391	390	389	388	388	390	390	426
SUMMER.																											
April ...	415	370	370	371	371	372	374	375	381	395	412	423	423	419	409	397	388	381	378	377	376	366	374	375	374	376	418
May ...	420	380	380	380	381	381	383	387	394	406	419	428	430	424	415	406	400	393	389	388	387	385	387	385	386	387	427
June ...	416	380	381	382	383	382	382	388	396	405	413	419	421	420	417	404	393	385	381	381	382	382	382	383	385	386	420
July ...	416	378	378	378	379	379	380	382	388	396	407	418	424	426	423	413	400	398	381	379	379	380	381	382	382	384	435
August ...	417	385	384	385	386	385	386	386	385	391	416	419	423	424	417	407	400	394	391	389	387	385	386	385	386	387	435
September ...	416	384	384	386	386	385	385	383	380	387	404	406	427	424	417	406	397	391	389	386	387	386	386	388	389	388	435
Means ...	417	379	379	380	381	381	382	383	387	397	412	419	425	423	416	405	396	390	385	383	383	381	383	383	384	385	428

TABLE XXV.—Diurnal Inequality of the Horizontal Force as deduced from Table XXIV.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
SUMMER MEANS.																									
	−·00013	−·00013	−·00012	−·00011	−·00011	−·00010	−·00009	−·00005	+·00005	+·00020	+·00027	+·00033	+·00031	+·00024	+·00013	+·00004	−·00002	−·00007	−·00009	−·00009	−·00011	−·00009	−·00009	−·00008	−·00007
WINTER MEANS.																									
	−·00012	−·00011	−·00011	−·00010	−·00009	−·00009	−·00007	−·00002	+·00006	+·00017	+·00026	+·00030	+·00026	+·00016	+·00007	·00000	−·00005	−·00007	−·00006	−·00007	−·00008	−·00009	−·00009	−·00007	−·00007
ANNUAL MEANS.																									
	−·00013	−·00012	−·00012	−·00011	−·00011	−·00010	−·00008	−·00004	+·00005	+·00018	+·00026	+·00031	+·00028	+·00020	+·00010	+·00002	−·00004	−·00007	−·00008	−·00009	−·00010	−·00010	−·00009	−·00008	−·00007

Note.—When the sign is + the reading is above the mean.

TABLE XXVI.—Hourly means of the Horizontal Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1905.

(The mean for the year=0·37387.)

Hours.	Preceding Noon	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding Noon.
	0·37000+													WINTER.													
1905. Months.																											
January ...	407	368	370	374	375	377	377	380	387	391	392	396	400	399	396	389	387	386	383	381	383	380	379	382	380	382	404
February ...	407	370	371	380	381	379	379	380	383	389	399	405	412	411	403	396	391	385	383	383	380	375	372	369	374	376	420
March ..	424	374	373	375	375	375	375	376	384	400	416	431	435	427	417	406	395	388	386	385	383	380	380	382	384	383	443
October ..	419	361	360	362	360	360	361	360	361	370	384	398	409	405	395	386	·378	373	373	374	372	370	368	369	369	371	411
November ..	417	377	380	379	380	382	384	389	397	409	419	429	431	425	413	403	396	390	388	386	384	382	381	379	379	382	425
December ..	417	390	390	389	389	391	392	394	401	406	413	420	424	418	410	404	400	393	391	393	391	389	390	388	389	390	426
Means ...	415	373	374	376	377	377	378	380	385	394	404	413	418	414	406	397	391	386	384	384	382	379	378	378	379	381	421
														SUMMER.													
April ...	411	362	362	361	362	362	363	365	367	381	401	413	418	413	406	397	388	379	374	370	369	367	365	365	366	364	414
May ...	411	373	372	375	375	374	374	375	379	387	397	407	414	413	408	403	397	388	380	374	374	373	376	376	376	376	427
June ...	417	373	373	373	372	372	374	379	389	399	413	423	428	425	420	409	396	384	379	376	376	377	377	377	378	379	431
July ...	424	379	379	379	380	380	381	384	392	403	415	428	436	433	429	419	404	393	386	382	382	382	382	381	382	382	427
August ...	407	368	369	371	370	371	370	372	380	395	410	418	421	419	413	405	396	388	379	375	374	375	374	373	373	374	424
September ...	410	379	377	376	380	380	380	377	377	386	400	411	413	412	404	397	391	388	386	384	382	380	378	379	381	382	418
Means ...	413	372	372	372	373	373	374	375	381	392	406	417	422	419	413	405	395	387	381	377	376	376	375	375	376	376	423

TABLE XXVII.—Diurnal Inequality of the Horizontal Force as deduced from Table XXVI.

Hours	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	—·00015	—·00015	—·00015	—·00014	—·00014	—·00013	—·00012	—·00006	+·00005	+·00019	+·00030	+·00035	+·00032	+·00026	+·00018	+·00008	·00000	—·00006	—·00010	—·00011	—·00011	—·00012	—·00012	—·00011	—·00013
													WINTER MEANS.												
	—·00015	—·00014	—·00012	—·00011	—·00011	—·00010	—·00008	—·00003	+·00006	+·00016	+·00025	+·00030	+·00026	+·00018	+·00009	+·00003	—·00002	—·00004	—·00004	—·00006	—·00009	—·00010	—·00010	—·00009	—·00007
													ANNUAL MEANS.												
	—·00014	—·00014	—·00013	—·00012	—·00012	—·00011	—·00009	—·00004	+·00006	+·00018	+·00028	+·00033	+·00030	+·00022	+·00014	+·00006	—·00001	—·00005	—·00007	—·00008	—·00010	—·00010	—·00010	—·00009	—·00009

Note.—When the sign is + the reading is above the mean.

TABLE XXVIII.—Hourly Means of the Vertical Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1901.

(*The Mean for the year* = 0·14751.)

Hours.	Preced-ing noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeed-ing noon.
	0·14000+													WINTER.													
1901. Months.																											
January ...	710	713	713	712	712	712	712	712	710	715	717	712	706	705	702	703	707	709	710	710	711	711	711	711	711	712	708
February ...	708	715	715	715	715	715	714	714	715	718	717	713	710	711	713	715	714	715	715	715	715	715	715	716	716	717	711
March ...	716	723	722	722	721	721	721	722	726	723	718	713	712	713	718	726	726	722	718	718	718	719	719	720	720	721	709
October ...	760	772	772	771	771	772	771	774	777	770	763	758	753	759	767	772	772	769	769	771	770	770	770	771	771	771	764
November ...	778	785	785	785	785	784	785	784	785	782	775	769	772	780	785	785	783	783	783	783	783	784	784	785	785	785	780
December ...	792	795	794	794	794	794	794	793	794	797	795	791	790	796	797	794	793	795	796	795	795	795	795	795	795	795	792
Means ...	744	750	750	750	750	750	749	750	751	751	747	743	740	744	747	749	749	749	748	749	749	749	749	750	750	750	744
														SUMMER.													
April ...	715	730	731	731	730	730	730	734	732	723	715	710	711	717	724	730	734	734	730	729	728	728	730	730	730	731	712
May ...	731	745	745	745	745	745	747	753	751	741	727	722	723	730	737	743	745	746	746	743	744	745	745	746	746	746	731
June ...	740	757	757	756	757	757	761	763	759	751	740	736	735	737	747	754	761	761	758	755	755	756	757	758	757	757	739
July ...	747	763	763	762	763	763	766	768	767	759	750	748	746	751	758	765	770	768	766	762	761	762	762	764	764	764	754
August ...	759	771	771	770	771	771	773	778	775	769	761	756	757	760	768	774	776	777	772	767	769	770	770	771	771	771	753
September ...	756	778	779	778	778	779	780	785	784	771	759	751	751	758	768	779	784	783	776	773	774	775	776	777	777	777	756
Means ...	741	757	758	757	757	757	759	763	761	752	742	737	737	742	750	757	762	761	758	755	755	756	757	758	757	758	741

TABLE XXIX.—Diurnal Inequality of the Vertical Force as deduced from Table XXVIII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	+·00003	+·00004	+·00003	+·00003	+·00003	+·00005	+·00009	+·00007	−·00002	−·00012	−·00017	−·00017	−·00012	−·00004	+·00003	+·00008	+·00007	+·00004	+·00001	+·00001	+·00002	+·00003	+·00004	+·00003	+·00004
													WINTER MEANS.												
	+·00002	+·00002	+·00002	+·00002	+·00002	+·00001	+·00002	+·00003	+·00003	−·00001	−·00005	−·00008	−·00004	−·00001	+·00001	+·00001	+·00001	·00000	+·00001	+·00001	+·00001	+·00001	+·00002	+·00002	+·00002
													ANNUAL MEANS.												
	+·00003	+·00003	+·00002	+·00002	+·00003	+·00003	+·00006	+·00005	+·00001	−·00006	−·00011	−·00012	−·00008	−·00002	+·00002	+·00004	+·00004	+·00002	+·00001	+·00001	+·00001	+·00002	+·00003	+·00003	+·00003

Note.—When the sign + is the reading is above the mean.

TABLE XXX.—**Hourly Means of the Vertical Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1902.**

(*The Mean for the year* = 0·14835.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	0·14000+													WINTER.													
1902 Months.																											
January ...	780	797	796	797	797	797	796	796	798	806	805	795	785	785	785	784	792	798	798	796	797	797	797	797	797	797	778
February ...	797	804	804	804	804	804	804	804	805	806	804	798	791	793	799	801	803	802	802	802	803	803	803	803	803	804	797
March ...	799	811	810	810	811	810	811	812	814	812	807	798	792	797	805	811	811	810	807	808	808	809	809	810	810	811	809
October ...	845	859	859	859	859	859	860	862	863	855	848	840	841	846	853	859	861	860	857	855	857	858	859	858	859	859	844
November ...	874	878	877	877	877	877	877	875	877	878	874	867	871	878	880	877	876	877	876	876	876	876	877	877	877	877	878
December ...	888	891	891	890	890	890	890	889	889	890	888	886	888	892	895	893	891	892	891	891	892	891	891	892	893	894	887
Means ...	830	840	839	839	840	839	840	840	841	841	838	831	828	832	836	837	839	840	838	838	839	839	839	839	840	840	831
														SUMMER.													
April ...	797	814	814	814	814	814	815	820	819	812	804	795	794	799	805	810	814	814	813	812	812	813	814	815	814	814	800
May ...	809	821	821	821	821	821	823	827	825	815	804	798	797	806	815	821	824	823	821	819	819	819	821	821	821	821	806
June ...	810	824	824	824	823	824	827	829	825	816	807	805	806	810	817	823	826	825	822	819	821	822	823	823	824	824	808
July ...	825	840	840	840	840	840	844	850	848	839	828	823	820	825	828	835	842	843	841	839	838	839	840	840	840	840	820
August ...	849	861	860	861	861	861	863	868	868	859	845	838	842	848	854	860	863	863	860	856	858	858	859	860	860	860	845
September ...	832	854	854	854	854	855	856	864	863	846	833	823	820	827	841	853	858	857	853	851	850	851	852	853	853	854	829
Means ...	820	836	835	836	835	836	838	843	841	831	820	814	813	819	827	834	838	837	835	833	833	834	835	835	835	835	818

TABLE XXXI.—**Diurnal Inequality of the Vertical Force as deduced from Table XXX.**

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	+·00004	+·00003	+·00004	+·00003	+·00004	+·00006	+·00011	+·00009	−·00001	−·00012	−·00018	−·00019	−·00013	−·00005	+·00002	+·00006	+·00005	+·00003	+·00001	+·00001	+·00002	+·00003	+·00003	+·00003	+·00003
													WINTER MEANS.												
	+·00002	+·00001	+·00001	+·00002	+·00001	+·00002	+·00002	+·00003	+·00003	·00000	−·00007	−·00010	−·00006	−·00002	−·00001	+·00001	+·00002	·00000	·00000	+·00001	+·00001	+·00001	+·00001	+·00002	+·00002
													ANNUAL MEANS.												
	+·00003	+·00002	+·00003	+·00003	+·00003	+·00004	+·00006	+·00006	+·00001	−·00006	−·00013	−·00014	−·00010	−·00004	+·00001	+·00003	+·00004	+·00002	·00000	+·00001	+·00001	+·00002	+·00002	+·00003	+·00003

Note.—When the sign is + the reading is above the mean.

Table XXXII.—Hourly Means of the Vertical Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1903.

(*The Mean for the year*=0·14907.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	·14000+													WINTER.													
1903 Months.																											
January ...	879	888	888	888	888	888	888	889	891	894	891	876	872	877	881	881	884	889	891	888	889	888	889	889	889	889	885
February ...	865	875	875	875	874	874	874	873	875	876	873	868	864	864	866	869	871	873	871	872	873	873	873	874	875	875	865
March ...	865	879	879	879	879	879	879	879	884	885	882	874	867	863	871	877	878	877	875	876	876	877	877	879	880	880	862
October ...	910	925	925	925	924	926	926	929	929	921	914	907	909	915	923	928	928	923	919	921	922	923	924	925	925	926	914
November ...	939	946	946	946	945	946	947	945	949	946	940	932	932	940	944	945	944	941	941	943	945	945	945	946	947	947	943
December ..	940	952	951	951	950	950	951	951	949	952	954	951	946	944	944	944	947	948	947	948	950	950	949	951	952	952	946
Means ...	900	911	911	911	910	910	911	911	913	912	909	901	898	900	905	907	909	908	907	908	909	909	909	911	911	911	902
														SUMMER.													
April	861	879	878	878	877	877	877	881	879	873	864	854	852	857	865	873	878	879	876	874	874	875	877	877	876	877	862
May	867	881	881	881	881	882	885	889	883	875	864	858	859	865	871	880	883	884	881	877	878	879	880	880	880	880	861
June	878	900	899	900	899	900	905	906	899	891	880	875	871	878	887	894	901	904	901	897	897	899	900	901	901	900	879
July	898	912	913	913	913	914	917	921	916	906	899	895	896	903	910	915	919	920	916	912	911	912	912	913	913	913	893
August ...	919	937	937	936	937	937	940	945	941	933	921	919	920	924	931	938	941	942	939	934	934	934	935	936	936	937	923
September ...	924	947	947	947	947	948	950	956	949	932	922	916	916	927	940	951	954	950	943	942	943	944	945	915	946	946	928
Means	891	909	909	909	909	910	912	916	911	902	892	886	886	892	901	908	913	913	909	906	906	907	908	909	909	909	891

Table XXXIII.—Diurnal Inequality of the Vertical Force as deduced from Table XXXII.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	+·00004	+·00004	+·00004	+·00004	+·00005	+·00007	+·00011	+·00006	—·00003	—·00013	—·00019	—·00019	—·00013	—·00004	+·00003	+·00008	+·00008	+·00004	+·00001	+·00001	+·00002	+·00003	+·00004	+·00004	+·00004
													WINTER MEANS.												
	+·00003	+·00003	+·00003	+·00002	+·00002	+·00003	+·00003	+·00005	+·00004	+·00001	—·00007	—·00010	—·00008	—·00003	—·00001	+·00001	·00000	—·00001	·00000	+·00001	+·00001	+·00001	+·00003	+·00003	+·00003
													ANNUAL MEANS.												
	+·00003	+·00003	+·00003	+·00002	+·00003	+·00005	+·00007	+·00005	·00000	—·00007	—·00013	—·00015	—·00011	—·00004	+·00001	+·00004	+·00004	+·00001	·00000	+·00001	+·00001	+·00002	+·00003	+·00003	+·00003

Note.—When the sign is + the reading is above the mean.

TABLE XXXIV.—Hourly Means of the Vertical Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1904.

(*The Mean for the year*=0·14978)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	0·14000 +													WINTER.													
1904. Months.																											
January ...	963	973	973	972	972	973	972	973	974	976	966	952	954	964	968	970	974	973	967	969	971	972	972	973	972	973	956
February ...	963	976	976	976	976	975	976	976	978	979	975	963	960	961	966	967	968	970	970	972	973	974	974	974	976	976	962
March ...	957	973	973	973	972	973	973	976	980	979	972	964	959	957	962	967	970	969	967	967	969	970	971	971	973	973	957
October ...	974	991	991	991	990	991	992	994	991	985	976	970	965	970	983	991	993	989	984	986	988	988	989	990	990	991	977
November ...	1,005	1,006	1,005	1,005	1,005	1,004	1,004	1 003	1,004	1,000	996	990	993	1,000	1,004	1,003	1,000	998	999	1,000	1,001	1,001	1,002	1,003	1,005	1,005	998
December ...	1,022	1,025	1,024	1,024	1,022	1,023	1,023	1,022	1,022	1,020	1,020	1,012	1,013	1,020	1,025	1,025	1,022	1,019	1,018	1,021	1,021	1,023	1,021	1,023	1,024	1,024	1,019
Means ...	981	991	990	990	989	990	990	991	991	990	984	975	974	979	985	987	988	986	984	986	987	988	988	989	990	990	978
														SUMMER.													
April ...	937	954	954	953	952	952	955	960	961	954	942	934	931	938	944	949	955	957	952	947	947	948	950	951	952	952	933
May ...	953	969	969	968	969	969	972	976	973	962	951	948	952	956	963	966	967	969	970	967	966	967	968	969	969	970	953
June ...	951	967	968	967	968	969	971	977	975	970	963	953	947	954	961	967	969	972	971	966	966	967	969	969	969	969	957
July ...	961	981	981	981	981	982	985	991	987	979	967	964	961	963	967	975	983	988	985	980	978	978	980	980	981	982	970
August ...	960	980	980	979	980	980	983	990	988	973	956	957	960	964	973	980	983	984	980	976	976	976	978	979	979	980	960
September ...	962	981	981	981	982	982	984	989	985	970	954	946	950	961	972	981	982	979	975	975	975	976	977	979	981	982	962
Means ...	954	972	972	971	972	972	975	980	978	968	955	950	950	956	963	970	973	975	972	968	968	969	970	971	972	972	956

TABLE XXXV.—Diurnal Inequality of the Vertical Force as deduced from Table XXXIV.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
													SUMMER MEANS.												
	+·00004	+·00004	+·00003	+·00004	+·00004	+·00007	+·00012	+·00010	·00000	−·00013	−·00018	−·00018	−·00012	−·00005	+·00002	+·00005	+·00007	+·00004	·00000	·00000	+·00001	+·00002	+·00003	+·00004	+·00004
													WINTER MEANS.												
	+·00004	+·00003	+·00003	+·00002	+·00003	+·00003	+·00004	+·00004	+·00003	−·00003	−·00012	−·00013	−·00008	−·00002	·00000	+·00001	−·00001	−·00003	−·00001	·00000	+·00001	+·00001	+·00002	+·00003	+·00003
													ANNUAL MEANS.												
	+·00003	+·00003	+·00003	+·00003	+·00003	+·00004	+·00008	+·00007	+·00001	−·00008	−·00015	−·00016	−·00011	−·00004	·00000	+·00002	+·00003	·00000	−·00001	·00000	·00000	+·00001	+·00002	+·00003	+·00003

Note.—When the sign is + the reading is above the mean.

TABLE XXXVI.—Hourly Means of the Vertical Force in C. G. S. units (corrected for temperature) as determined from the selected quiet days in 1905.

(*The Mean for the year*=0·15083.)

Hours.	Preceding noon.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.	Succeeding noon.
	0·15000	WINTER.																									
1905. Months.																											
January ...	28	37	36	36	36	36	36	36	36	41	40	29	24	22	29	32	34	35	35	35	36	36	36	36	37	37	23
February ...	42	62	62	62	62	60	60	60	62	65	61	50	44	46	53	56	55	54	55	57	60	60	59	60	60	61	45
March ...	39	59	58	57	57	57	58	59	63	59	52	43	35	42	51	59	59	55	49	52	55	55	54	57	58	59	38
October ...	102	120	119	120	119	118	121	125	127	114	98	85	86	95	108	119	121	118	111	114	115	115	116	118	119	118	96
November ...	106	114	116	113	113	113	114	112	115	112	108	99	100	106	111	113	112	108	104	109	110	110	109	112	113	113	104
December ...	119	132	132	132	133	132	133	132	132	134	130	123	122	124	124	125	125	128	126	130	131	131	131	133	134	134	123
Means ...	73	87	87	87	87	86	87	87	89	87	81	71	69	72	79	84	84	83	80	83	84	84	84	86	87	87	71
	SUMMER.																										
April ..	19	43	42	42	41	41	42	48	48	39	32	25	21	21	28	36	41	41	40	38	37	38	40	41	41	43	23
May ...	42	65	65	65	65	65	68	74	70	61	45	38	36	37	47	59	63	66	66	61	60	62	63	64	65	65	35
June ...	53	75	75	74	75	78	83	79	70	60	54	51	57	64	76	80	78	77	73	71	72	73	74	74	75	59	
July ...	98	113	112	112	112	114	117	123	117	107	92	83	88	95	103	111	117	121	118	113	110	112	113	113	114	114	103
August ...	87	110	111	111	111	112	116	121	116	98	82	76	79	87	96	106	113	116	113	107	105	106	107	109	108	110	89
September ...	96	122	122	123	122	123	125	133	123	105	89	82	84	95	109	120	125	123	116	116	118	118	119	120	121	122	92
Means ...	66	88	88	88	87	88	91	97	92	80	67	60	60	65	74	85	90	91	88	85	83	85	86	87	87	88	67

TABLE XXXVII.—Diurnal Inequality of the Vertical Force as deduced from Table XXXVI.

Hours.	Mid.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid.
	SUMMER MEANS.																								
	+·00005	+·00005	+·00005	+·00004	+·00005	+·00008	+·00014	+·00009	—·00003	—·00016	—·00023	—·00028	—·00018	—·00009	+·00002	+·00007	+·00008	+·00005	+·00002	·00000	+·00002	+·00003	+·00004	+·00004	+·00005
	WINTER MEANS.																								
	+·00004	+·00004	+·00004	+·00004	+·00003	+·00004	+·00004	+·00006	+·00004	—·00002	—·00012	—·00014	—·00011	—·00004	+·00001	+·00001	·00000	—·00003	·00000	+·00001	+·00001	+·00001	+·00003	+·00004	+·00004
	ANNUAL MEANS.																								
	+·00005	+·00004	+·00004	+·00004	+·00003	+·00006	+·00009	+·00008	+·00001	—·00009	—·00017	—·00019	—·00014	—·00006	+·00001	+·00004	+·00004	+·00001	+·00001	+·00001	+·00002	+·00002	+·00003	+·00004	+·00005

Note.—When the sign is + the reading is above the mean.

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